SERVICE MANUAL

SERVICE MANUAL SECTION

4200, 4300, 4400, 7300, 7400, 7500, 8500, 8600 SERIES Built January 1, 2002 To September 30, 2002 — ELECTRICAL CIRCUIT DIAGRAMS

Truck Model: 4200
Start Date: 10/16/2000 End Date: 09/30/2002

Truck Model: 4300
Start Date: 10/16/2000 End Date: 09/30/2002

Truck Model: 4400
Start Date: 10/16/2000 End Date: 09/30/2002

Truck Model: 7300
Start Date: 12/01/2001 End Date: 09/30/2002

Truck Model: 7400
Start Date: 12/01/2001 End Date: 09/30/2002

Truck Model: 7500
Start Date: 12/01/2001 End Date: 09/30/2002

Truck Model: 8500
Start Date: 01/01/2002 End Date: 09/30/2002

Truck Model: 8600
Start Date: 01/01/2002 End Date: 09/30/2002

S082852

01/01/2002

Table of Contents

1. INSTRUCTIONS AND CHARTS (CHAPTER 1)

1.1. CIRCUIT NUMBER IDENTIFICATION AND LOCATION CHART, P. 1

INTERNATIONAL TRUCK AND ENGINE CORPORATION

ELECTRICAL CIRCUIT DIAGRAM — CHAPTER 1

INTERNATIONAL CIRCUIT NUMBER IDENTIFICATIOIN AND LOCATION

PREFIX DESIGNATIONS

PREFIX	LOCATION
A	Cab-instrument Panel Module
B	Cab-Driver Control Module
C	Cab-Header/Clearance Lights
D	Cab-Roof/Rear Panel
E	Cab-Left Door/Doors
F	Cab-Right Door/Doors
H	Cab-Sleeper
J	Cab-Dash(outside)
K	Engine/Radiator
L	Transmission
M	Chassis/Front End (Cab Dash Panel Forward)
N	Chassis/Center Section (Cab Dash Panel to Cab RR Xmbr)
P	Chassis/Wheel Base Section
R	Chassis/Suspension/Rear Axle/Axles
S	Chassis/AF Section/Stop/Tail/Turn Lights

CIRCUIT NUMBER AND IDENTIFICATIONS

CIRCUIT NUMBER	COLOR	DESCRIPTION
1	LTBL	ALTERNATOR - FIELD
2	RD	ALTERNATOR - CHARGE
3	DKBL GY	1708 DATA LINK, SWITCH DATA LINK (+) 1708 DATA LINK, SWITCH DATA LINK (-)
4		SERIAL/DATA COMMUNICATION J1922
5	YL GN	DRIVE TRAIN J1939 DATA LINK (+) DRIVE TRAIN J1939 DATA LINK (-)
6	GY	LOW VOLTAGE ELECTRONIC FEED (< 9 VOLTS)
7	RD	ALTERNATOR - RESISTANCE
8		

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00DLCK	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS

RELEASE NO.	DATE	PART NO.	SHEET
P52778H	09AUG00	AE08-52365	01

Figure 1 Circuit Number Identification and Location Chart

1.2. CIRCUIT NUMBER IDENTIFICATION AND LOCATION CHART, P. 2

INTERNATIONAL TRUCK AND ENGINE CORPORATION	ELECTRICAL CIRCUIT DIAGRAM	CHAPTER 1
THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.	INTERNATIONAL CIRCUIT NUMBER IDENTIFICATION AND LOCATION (CONT.)	

CIRCUIT NUMBER AND IDENTIFICATIONS (CONT.)

CIRCUIT NUMBER	COLOR	DESCRIPTION
9	GY	ZERO VOLT REFERENCE (ZVR)
10	WH	CHASSIS/ENGINE GROUND
11	WH	CAB/SLEEPER GROUND
12	LTBL	ACCESSORY FEED
13	PK BK	IGNITION FEED IGNITION FEED (BODY BUILDER CONNECTOR)
14	RD	BATTERY FEED
15	RD	KEY SWITCH FEED
16		
17	PK	STARTER CONTROL
18	PK	GLOW PLUG/PRE-HEATER
19	GY	ENGINE SHUTDOWN
20	LTGN	REMOTE POWER MODULE
21	TN	COLD START CONTROLS (ETHER)
22		
23	TN	ENGINE FAN/SHUTTERS
24	GY	ENGINE EXHAUST BRAKE
25	TN	PYROMETER
26	TN	AMMETER
27	TN	VOLTMETER
28	TN	INSTRUMENTS AND GAUGES
29	TN	ENGINE WATER TEMPERATURE
30	TN	ENGINE OIL TEMPERATURE
31	TN	TRANSMISSION OIL TEMPERATURE
32	TN	AXLE OIL TEMPERATURE

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
					RELEASE NO.	DATE	PART NO.	SHEET
					P52778H	09AUG00	AE08-52365	02

Figure 2 Circuit Number Identification and Location Chart (Cont.)

1.3. CIRCUIT NUMBER IDENTIFICATION AND LOCATION CHART, P. 3

INTERNATIONAL TRUCK AND ENGINE CORPORATION

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ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1

INTERNATIONAL CIRCUIT NUMBER IDENTIFICATION AND LOCATION (CONT.)

CIRCUIT NUMBER AND IDENTIFICATIONS (CONT.)

CIRCUIT NUMBER	COLOR	DESCRIPTION
33	TN	ENGINE OIL LEVEL
34	TN	COOLANT LEVEL
35	TN	ENGINE OIL PRESSURE
36	TN	FUEL LEVEL
37	TN	FUEL PUMP
38		
39	GY	AIR DRYER HEATER
40	GY	LOW AIR PRESSURE WARNING
41	TN	AIR TEMPERATURE
42	GY	FRONT AXLE ENGAGED
43	GY	POWER DIVIDER LOCK (PDL) WARNING
44	GY	PARK BRAKE WARNING
45	LTGN	ANTI - THEFT WARNING
46	GY	POWER TAKE - OFF WARNING
47	GY	SPEEDOMETER
48	GY	TACHOMETER
49	GY	DIFFERENTIAL LOCK WARNING
50	YL	LIGHT SWITCH FEED
51	YL	DIMMER SWITCH FEED
52	YL	HEADLIGHT HI - BEAM
53	YL	HEADLIGHT LO - BEAM
54	BN	PARKING/MARKER LIGHTS
55	OR	TURN SIGNAL - FEED
56	OR YL	TURN SIGNAL LIGHTS - LEFT TURN SIGNAL LIGHTS - LEFT (BODY BUILDER CONNECTION)
57	OR LT GN	TURN SIGNAL LIGHTS - RIGHT TURN SIGNAL LIGHTS - RIGHT (BODY BUILDER CONNECTION)

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00DLCK	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
					RELEASE NO.	DATE	PART NO.	SHEET
					P52778H	15 MAY 00	AE08-52365	03

Figure 3 Circuit Number Identification and Location Chart (Cont.)

1.4. CIRCUIT NUMBER IDENTIFICATION AND LOCATION CHART, P. 4

INTERNATIONAL TRUCK AND ENGINE CORPORATION

ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1

INTERNATIONAL CIRCUIT NUMBER IDENTIFICATION AND LOCATION (CONT.)

CIRCUIT NUMBER AND IDENTIFICATIONS (CONT.)

CIRCUIT NUMBER	COLOR	DESCRIPTION
58	BN	CLEARANCE/IDENTIFICATION LIGHTS
59	GY	SOLENOID
60	OR	HAZARD LIGHTS
61	GY	AIR SUSPENSION
62	DKBL	PANEL LIGHTS
63	DKBL	COURTESY/DOME LIGHTS
64	YL	FOG/DRIVING LIGHTS
65	OR	CAB REAR FLOOD LIGHT
66	YL	DAYTIME RUNNING LIGHTS
67		
68	BN	TAIL LIGHTS
69	BN	LICENSE PLATE LIGHT
70	OR RD	STOP LIGHTS STOP LIGHTS (BODY BUILDER CONNECTION)
71	OR LTBL	BACK - UP LIGHTS BACK - UP LIGHTS (BODY BUILDER CONNECTION)
72	OR	TRAILER AUXILIARY FEED - BATTERY
73	LTGN	PWM
74	LTGN	HEATER RECIRC MOTOR
75	LTGN	HEATER BLOWER MOTOR
76	LTGN	AUXILIARY FAN
77	LTGN	AIR CONDITIONER
78	LTGN	MIRRORS - HEATED; MOTORIZED
79	GY	SEAT BELTS
80	BK	SLEEPER BOX RELAY - FEED
81	LTGN	POWER DOOR LOCKS

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00DLCK	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS

RELEASE NO.	DATE	PART NO.	SHEET
P52778H	15MAY00	AE08-52365	04

Figure 4 Circuit Number Identification and Location Chart (Cont.)

1.5. CIRCUIT NUMBER IDENTIFICATION AND LOCATION CHART, P. 5

INTERNATIONAL TRUCK AND ENGINE CORPORATION

ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1

INTERNATIONAL CIRCUIT NUMBER IDENTIFICATION AND LOCTION (CONT.)

CIRCUIT NUMBER AND IDENTIFICATIONS (CONT.)

CIRCUIT NUMBER	COLOR	DESCRIPTION
82	GY	WINDSHIELD WIPER
83	LTGN	POWER WINDOWS
84	LTGN	CIGAR LIGHTER
85	GY	HORN
86	LTGN	RADIO - ENTERTAINMENT/CLOCK
87	GY	WINDSHIELD WASHER
88	LTGN	CLOCK/HOURMETER
89	VT	AIR BAG
90	GY	HYDRAULIC BRAKE PUMP
91	VT	INTERCOMMUNICATIONS
92	TN	TRANSMISSION CONTROLS - ELECTRONIC
93	TN	AXLE SHIFT CONTROL
94	GY	ANTILOCK BRAKE SYSTEM
95	TN	EXHAUST EMISSION
96	YL	SNOW PLOW LIGHTS/CRUISE CONTROL
97	VT	ENGINE CONTROLS - ELECTRONIC
98	BK	DATALINK AND DIAGNOSTICS
99	VT	ACCELERATOR POSITION SENSOR (APS)
100		AIR HORN (ELECTRIC SOLENOID ACTUATED)
101		BRAKE APPLICATION AIR
102		FLASH TO PASS

CHK	DATE	CHANGE	REV	REFERENCE
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U
PEC	18JUN01	ADDED CLOCK TO #86.	B	P54634F

DRAWN	NAME		
U00DLCK	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
RELEASE NO.	DATE	PART NO.	SHEET
P52778H	15MAY00	AE08-52365	05

Figure 5 Circuit Number Identification and Location Chart (Cont.)

1.6. NAVPAK/ECM I6 ENGINE CONTROLLER CONNECTOR PIN NUMBER IDENTIFICATION, P. 6

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ECM PIN #	TERM	DESCRIPTION	ECM PIN #	TERM	DESCRIPTION
12	AAT	AMBIENT AIR TEMP. SENSOR	27	IVS	IDLE VALIDATION SWITCH
33	ACD	A/C DEMAND	54	OWL	OIL/WATER WARNING LIGHT
8	APS	ACCELERATOR POS. SENSOR	25	PWR RLY	CEC MAIN POWER RELAY SIGNAL
16	ATA(+)	J1708 DATALINK (+)	31	RAS	RESUME/ACCELERATE
17	ATA(-)	J1708 DATALINK (-)	37	RPRF	PRESET SPEED
29	BAP	BAROMETRIC AIR PRESS. SENSOR	30	RPS	REMOTE ACCELERATOR POS. SENS. SIG.
43	BN01	BRAKE STATUS #1	6	RPS_RTN	REMOTE ACCELERATOR POS. SENS RTN.
44	BN02	BRAKE STATUS #2	36	RVAR	VARIBLE SPEED SWITCH
18	CAN SHLD	DRIVETRAIN J1939 DATALINK SHLD	32	SCS	SET/COAST
19	CAN(+)	DRIVETRAIN J1939 DATALINK (+)	45	SIL	SERVICE INTERVAL LIGHT
20	CAN(-)	DRIVETRAIN J1939 DATALINK (-)	34	STI	SELF TEST INPUT
15	CBE_SEL1	RETARDER/EXHAUST BRAKE REQUEST	48	SUL	SHIFT UP LIGHT
10	CLS	COOLANT LEVEL SENSOR	59	TACA	TACHOMETER A
35	COD	CRUISE ON/OFF	60	TACB	TACHOMETER B
21	DC (+)	POWER	38	TCSS	TORQUE CURVE SELECTION INPUT
22	DC (+)	POWER	28	TSA	TWO SPEED AXLE
1	DC (-)	GROUND	3	VBREF(5V)	ACCELERATOR SENSOR SUPPLY
2	DC (-)	GROUND	11	VBREF GND	ACCELERATOR SENSOR GROUND
26	DDS	DRIVELINE DISENGAUGED INPUT	5	VCREF(5V)	REMOTE ACCELERATOR SENS. SUPPLY
42	DPS	GROUND	7	VCREF GND	REMOTE ACCELERATOR SENSOR GND
46	ECI	ENGINE CRANK INHIBIT	24	VIGN	IGNITION FEED
56	EDL	TRANSMISSION KICKDOWN	47	VRE	RETARDER/EXHAUST BRAKE ENABLE
53	GPL	GLOW PLUG LIGHT	39	VSS(+)	VEHICLE SPEED SENSOR (+)
4	HGE	HYD. PRESS GOVERNOR ENABLE	40	VSS(-)	VEHICLE SPEED SENSOR (-)
49	HMI	HYDRAULIC PRESS GOVERNOR IND. LT	58	VSSCALA	SPEEDOMETER SIGNAL A
13	HPS	HYDRAULIC PRESSURE SENSOR	57	VSSCALB	SPEEDOMETER SIGNAL B
41	HSO (+)	POWER	55	WARN	ENGINE WARNING LIGHT
23	HSO (-)	GROUND			

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
					U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	RELEASE NO.	DATE	PART NO.	SHEET
					P52778H	09AUG00	AE08-52365	06

Figure 6 NAVPAK/ECM I6 Engine Controller Connector Pin Number Identification

1.7. CIRCUIT DIAGRAM INSTRUCTIONS, P. 7

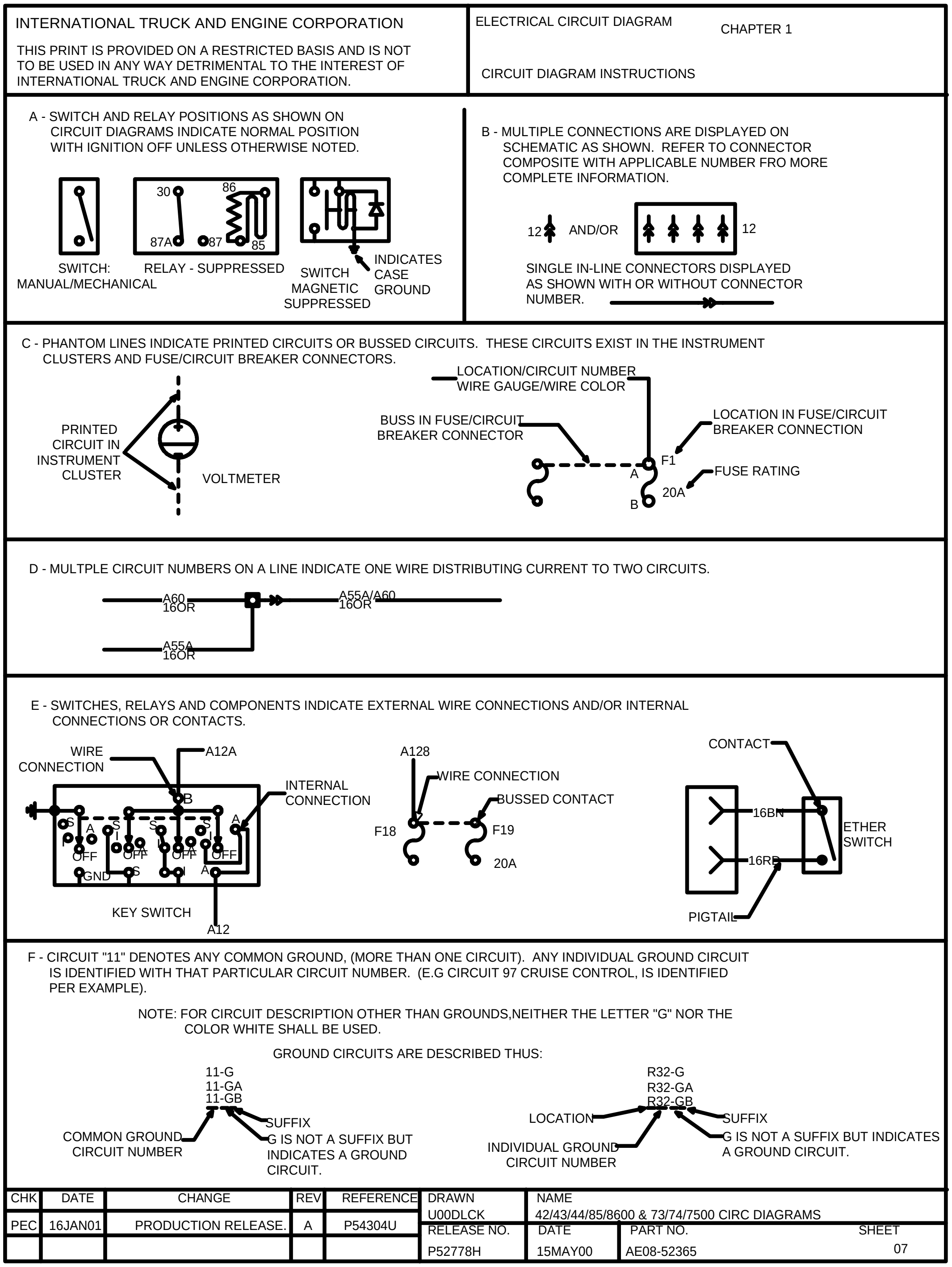


Figure 7 Circuit Diagram Instructions

1.8. CIRCUIT DIAGRAM INSTRUCTIONS, P. 8

INTERNATIONAL TRUCK AND ENGINE CORPORATION

ELECTRICAL CIRCUIT DIAGRAM — CHAPTER 1

CIRCUIT DIAGRAM INSTRUCTIONS

G - ABBREVIATIONS: COLOR, NOUN AND ENGINE

COLOR ABBREVIATION

AQ - AQUA
BK - BLACK
BL - BLUE
BN - BROWN
DK GN - DARK GREEN
GD - GOLD
GY - GRAY
GN - GREEN
LT BL - LIGHT BLUE
LT GN - LIGHT GREEN
OR - ORANGE
PK - PINK
PL - PURPLE
RD - RED
SIL - SILVER
TN - TAN
VT - VIOLET
WH - WHITE
YL - YELLOW

NOUN ABBREVIATION

A, ACC - ACCESSORY
AC - AIR CONDITIONER
AUX - AUXILIARY
AWG - AMERICAN WIRE GAUGE
B, BAT - BATTERY
CONN - CONNECTION OR CONNECTOR
DRL - DAYTIME RUNNING LIGHTS
ENG - ENGINE
FWD - FORWARD
GA - GAUGE
G, GND - GROUND
I, IGN - IGNITION
IND - INDICATOR
L - LEFT
LT - LIGHT
W/O - WITHOUT
OPT - OPTIONAL
R - RIGHT
S - START OR SENDER
THERMO - THERMOSTAT
W/ - WITH

ENGINE ABBREVIATION

ISM - MFG (CUMMINS) 10.8 LITER ELECTRONIC ENGINE CONTROL

N14E PLUS - MFG (CUMMINS) 14 LITER ELECTRONIC ENGINE CONTROL

C-10,C-12 - MFG (CATERPILLAR) 10.3 LITER ELECTRONIC ENGINE CONTROL

V8-AVNT - MFG (INTERNATIONAL) V8 6.0 LITER ELECTRONIC ENGINE CONTROL

I6-HEUI - MFG (INTERNATIONAL) NGD I6 DT466 & DT/HT530 ELECTRONIC ENGINE CONTROL

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
					RELEASE NO.	DATE	PART NO.	SHEET
					P52778H	10AUG00	AE08-52365	08

Figure 8 Circuit Diagram Instructions (Cont.)

1.9. SCHEMATIC SYMBOL CHART, P. 9

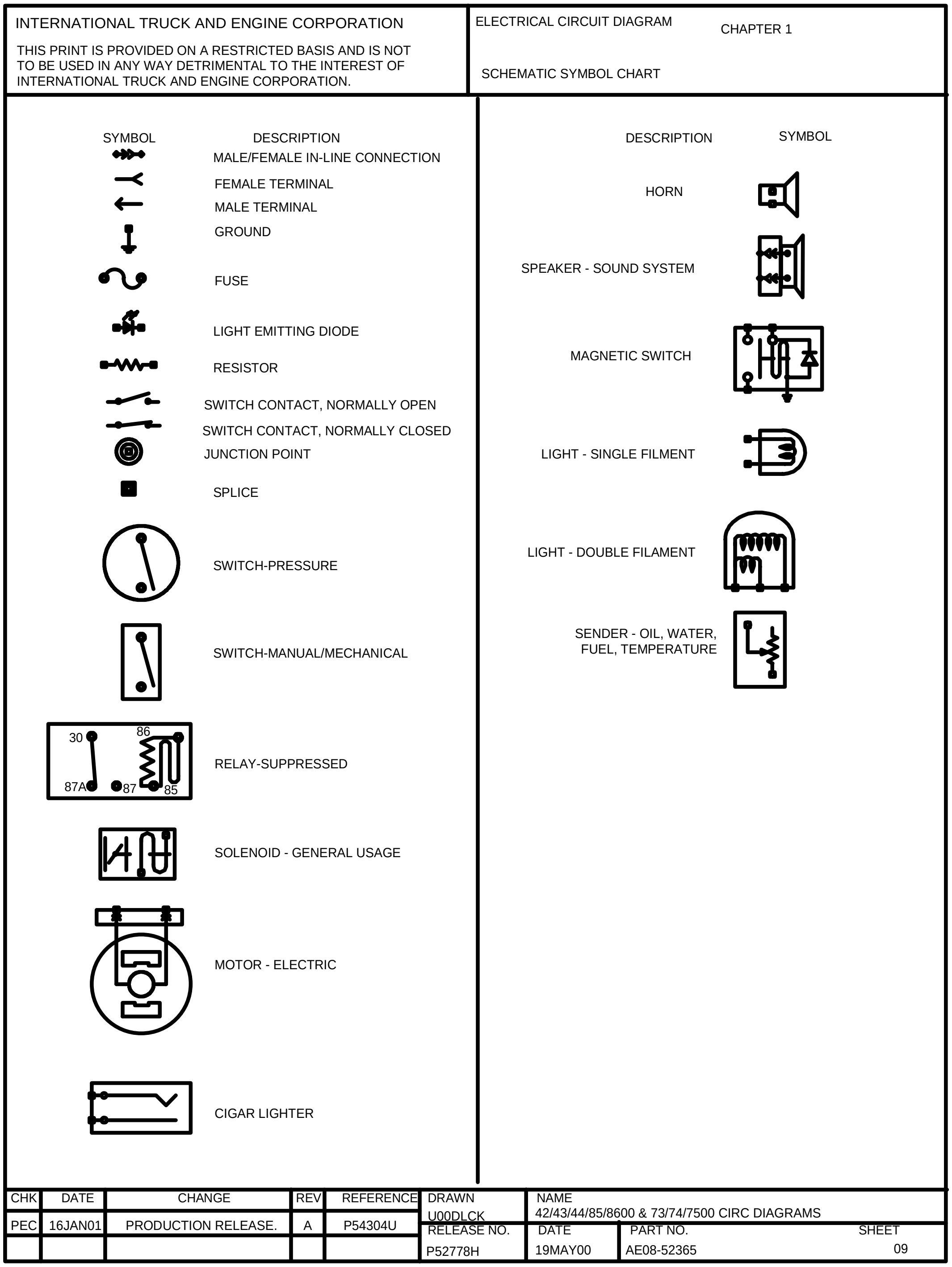


Figure 9 Schematic Symbol Chart

1.10. RELAY FUNCTIONS, P. 10

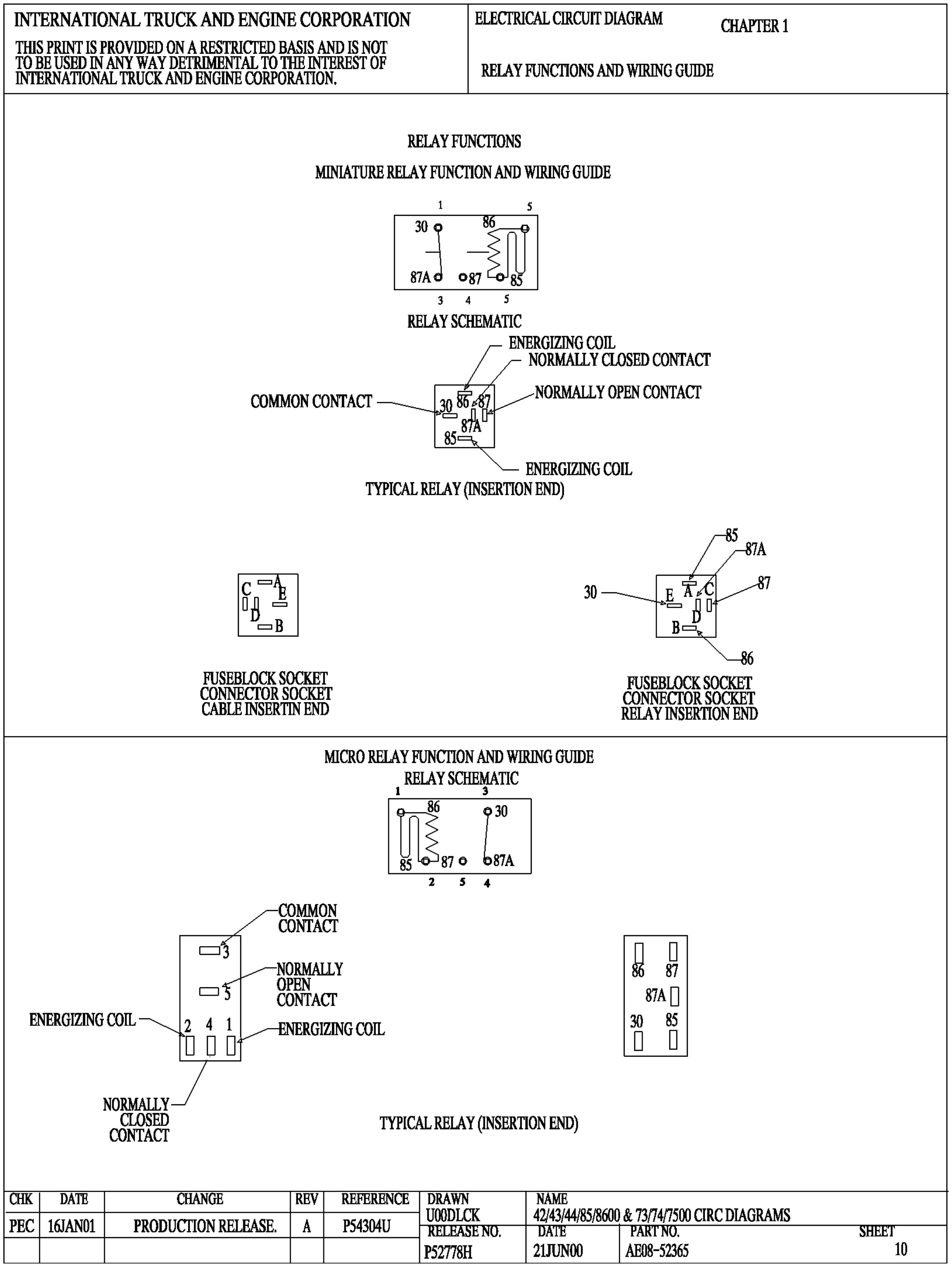


Figure 10 Relay Functions

1.11. LAMP BULB CHART, P. 11

INTERNATIONAL TRUCK AND ENGINE CORPORATION	ELECTRICAL CIRCUIT DIAGRAM	CHAPTER 1
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BULB APPLICATION	CANDLEPOWER OR WATTS	BULB TRADE NUMBER
BACK-UP LIGHTS	32 CANDLEPOWER	GE1156
CLEARANCE & INDENTIFICATION	3 CANDLEPOWER	GE193
COURTESY LIGHT	3 CANDLEPOWER	GE168
DOME LIGHTS	12 CANDLEPOWER	GE561
FOG LIGHTS	55 CANDLEPOWER	VH550
HEAD LIGHTS:		
LOW BEAMS	65 WATTS	GE9007
HIGH BEAMS	65 WATTS	GE9007
INSTRUMENT CLUSTER:		
GAUGE BACK LIGHT		082S270538-3
GAUGE WARNING LED (RED)		082S272109-3
RANGE INHIBIT LED (YELLOW)		082S272109-4
COLD AMBIENT PROTECTION LED (YELLOW)		082S272109-4
FUEL FILTER LED (YELLOW)		082S272109-4
WARN ENGINE LED (YELLOW)		082S272109-4
STOP ENGINE LED (RED)		082S272109-3
BRAKE PRESSURE LED (RED)		082S272109-3
BRAKE FLUID LED (RED)		082S272109-3
WAIT TO START LED (YELLOW)		082S272109-4
CHECK TRANSMISSION LED (YELLOW)		082S272109-4
TRAILER ABS LED (YELLOW)		082S272109-4
WASHER FLUID LED (YELLOW)		082S272109-4
LEFT TURN SIGNAL LED (GREEN)		082S272109-2
TRACTION CONTROL LED (GREEN)		082S272109-2
WATER IN FUEL LED(YELLOW)		082S272109-4
PARK FLUID LED LIGHT (RED)		082S272109-3
CHECK ELECTRICAL SYSTEMS LED (YELLOW)		082S272109-4
PARK BRAKE LED (RED)		082S272109-3
CRUISE CTRL ACTIVE LED (GREEN)		082S272109-2
ANTILOCK BRAKING SYSTEM LED (YELLOW)		082S272109-4
RIGHT TURN LED (GREEN)		082S272109-2
COOLANT LEVEL LED (RED)		082S272109-3
SEAT BELT LED (RED)		082S272109-3
HIGH BEAM ICON LED (BLUE)		082S272109-5
CHECK AIR CONDITIONER LED (YELLOW)		082S272109-4
RETARD OVER HEAT LED (RED)		082S272109-3
PTO/THROTTLE LED (RED)		082S272109-3
MAP LIGHT	3 CANDLEPOWER	1816
SIDE MARKER		2458
STOP & TURN/TAIL & LICENSE PLATE	32/3 CANDLEPOWER	1157
TURN SIGNAL/MARKER (FENDER)		3157
TURN SIGNAL & MARKER LIGHT		2356
WORK (TRAILER HOOK-UP) LIGHT		4411

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					RELEASE NO.	DATE	PART NO.	SHEET
PEC	18JUN01	REVISED DRWG SHEET.	B	P54634F	P52778H	20JUN00	AE08-52365	11

Figure 11 Lamp Bulb Chart

1.12. NAVPAK/ECM V8–AVNT CONTROLLER CONNECTORS X3 AND X4 PIN NUMBER IDENTIFICATION, P.12

INTERNATIONAL TRUCK AND ENGINE CORPORATION

ELECTRICAL CIRCUIT DIAGRAM CHAPTER 1

INTERNATIONAL NAVPAK/ECM V8-AVNT CONTROLLER CONNECTORS X3 & X4 PIN NUMBER IDENTIFICATION

CONNECTOR (X3)

ECM PIN #	TERM	DESCRIPTION
1	FPM	FUEL PUMP MONITIOR
2	FLI	FUEL LEVEL INDICATOR
3	KL.15	IGNITION FEED
4	ECL	ENGINE COOLANT LEVEL
5	MPR	MAIN POWER RELAY
6	KL.31	GROUND
7	KL.31	GROUND
8	DDS	DRIVELINE DISENAGE SWITCH
9	FPC	FUEL PUMP CONTROL
10	TCSS	TORQUE CURVE SELECT SWITCH
11	TACH	TACHOMETER CONTROL
12	CAN1+	DRIVETRAIN J1939 DATALINK +
13	CAN1-	DRIVETRAIN J1939 DATALINK -
14	RAS	RESUME/ACCELERATE
15	CAN1-SHLD	DRIVETRAIN 1939 DATALINK SHLD
16		NOT POPULATED
17	VSS_CAL	VEHICLE SPEED SENSOR CALIBRATION
18	VRE	VEHICLE RETARDER ENABLE
19	RPRE	REMOTE PRESET PTO ENABLE
20	RVAR	REMOTE VARIABLE PTO ENABLE
21	SCS	SET/COAST
22	ESHTR	ELECTRONIC SHUTTER RELAY
23	ECI	ENGINE CRANK INHIBIT
24	BAP	BAROMETRIC AIR PRESSURE

CONNECTOR (X4)

ECM PIN #	TERM	DESCRIPTION
1	KL.87	BATTERY POWER
2	KL.87	BATTERY POWER
3		NOT POPULATED
4	VBREF	SENSOR REFERENCE VOLTAGE
5		NOT POPULATED
6	LSI_SPARE2	LOW SPEED INOUT 2
7		NOT POPULATED
8		NOT POPULATED
9	VSS-	VEHICLE SPEED SENSOR-
10	VSS+	VEHICLE SPEED SENSOR+
11		NOT POPULATED
12	IVS	IDLE VALIDATION SWITCH
13		NOT POPULATED
14	EFAN	ELECTRIC FAN CONTROL
15	LSO_SPARE4	LOW SIDE OUTPUT 4
16		NOT POPULATED
17		NOT POPULATED
18	APS	ACCELERATION POSITION SENSOR
19		NOT POPULATED
20	ATA+	J1708 DATALINK +
21	ATA-	J1708 DATALINK -
22		NOT POPULATED
23	GSC	GENSET SPEED CONTROL
24	KL.31B	SENSOR REFERENCE GROUND

CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
					U00DLCK	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
					RELEASE NO.	DATE	PART NO.	SHEET
					P54304U	16JAN01	AE08-52365	12

Figure 12 NAVPAK/ECM V8–AVNT Controller Connectors X3 and X4 Pin Number Identification

2. 12 VOLT POWER DISTRIBUTION CIRCUIT DIAGRAMS (CHAPTER 2)

2.1. ACCESSORY, P. 1

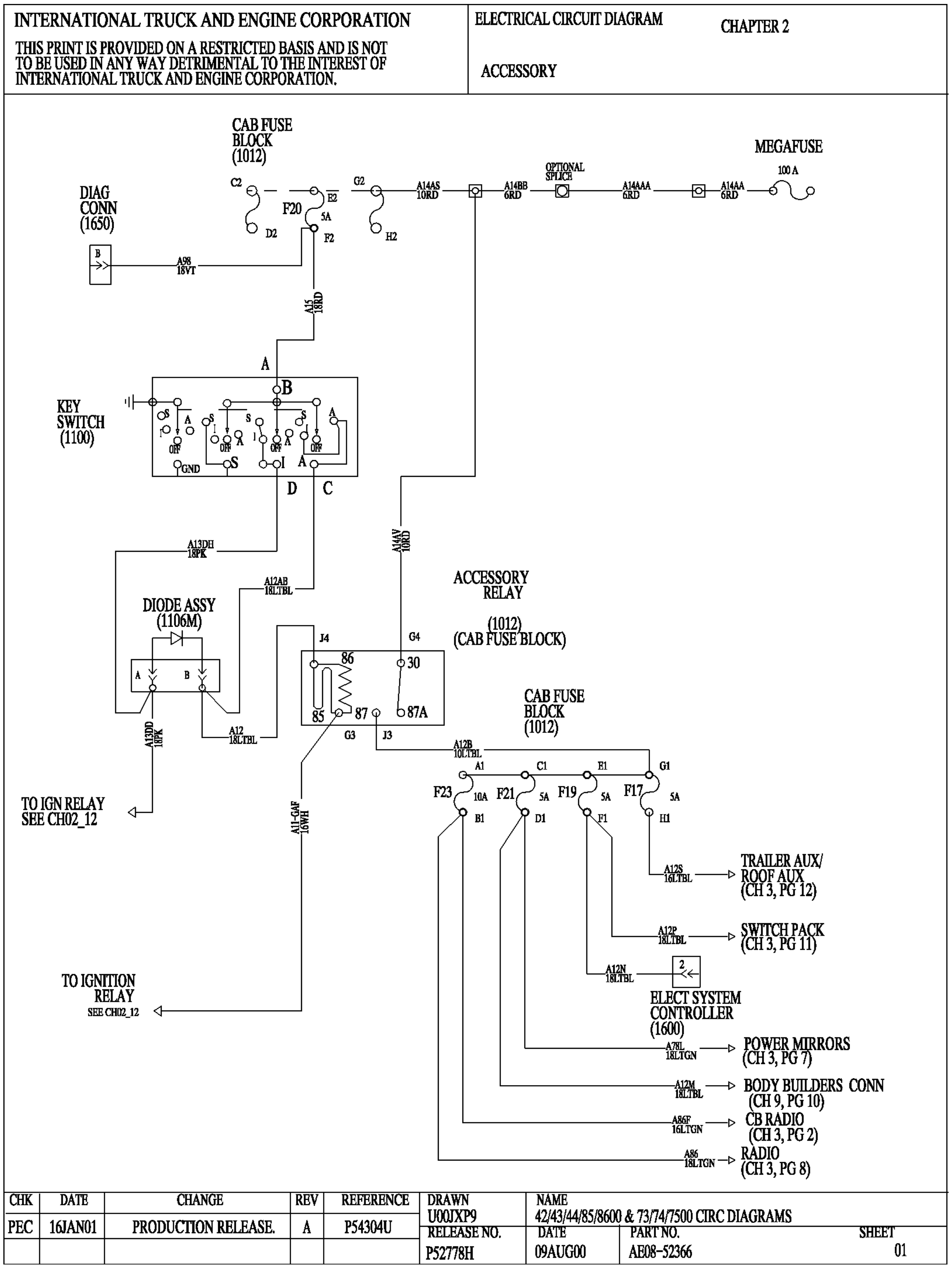
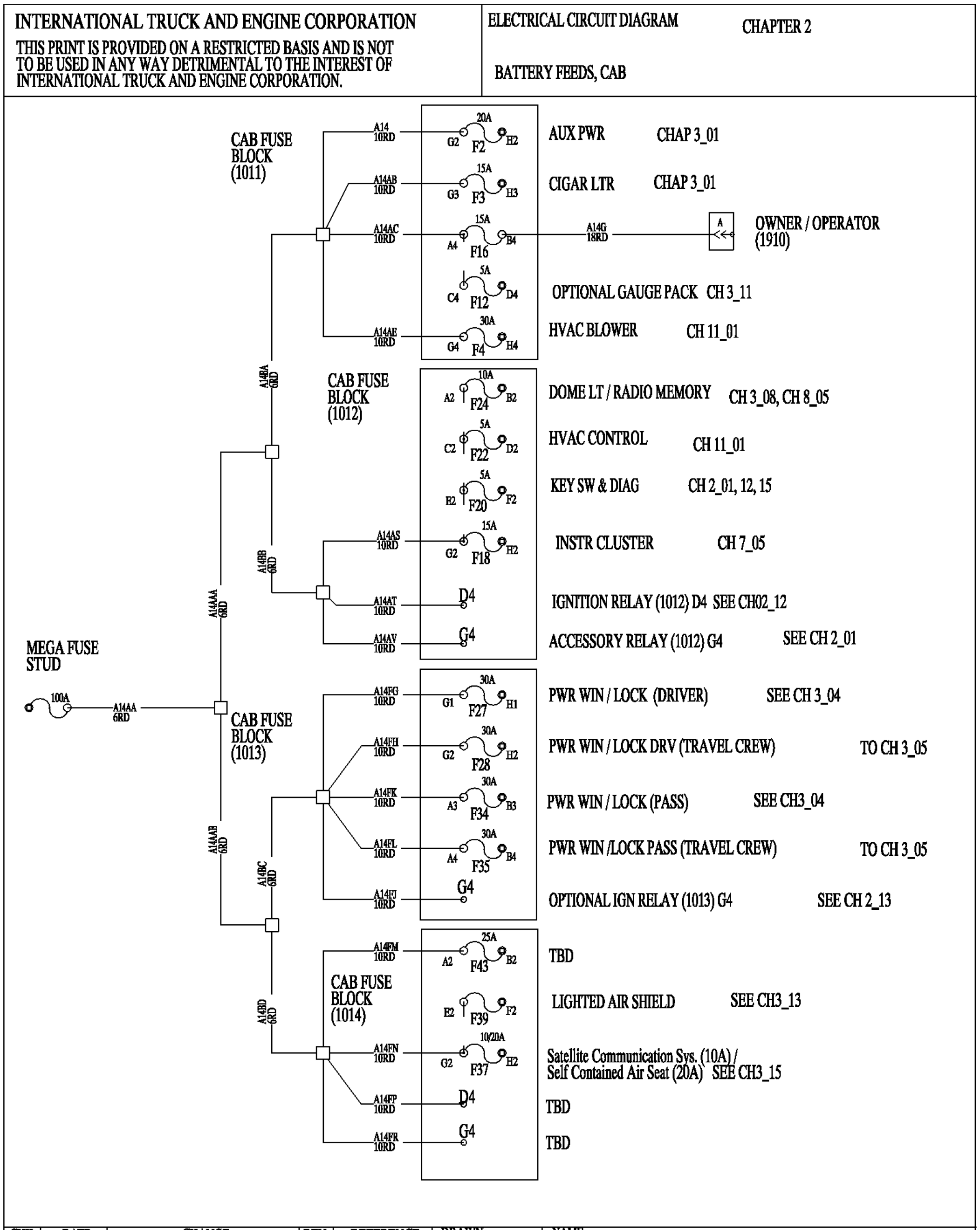


Figure 13 Accessory

2.2. BATTERY FEEDS, CAB, P. 2



CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
					U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	RELEASE NO.	DATE	PART NO.	SHEET
PEC	18JUN01	PRODUCTION RELEASE.	B	P54634F	P52778H	21JUN00	AE08-52366	02

Figure 14 Battery Feeds, Cab

2.3. BATTERY, P. 3

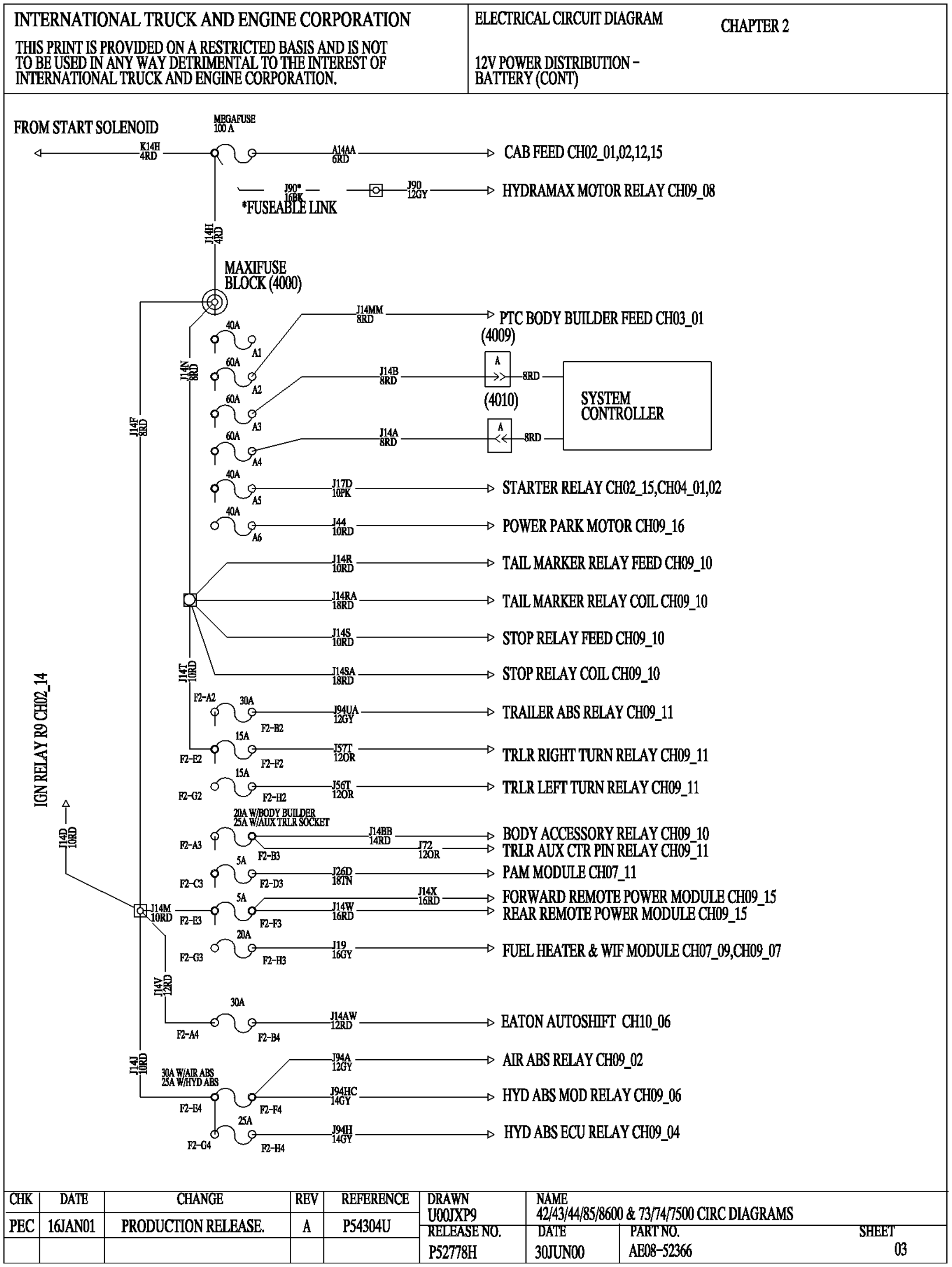


Figure 15 Battery

2.4. 1708 DATA LINK, P. 4

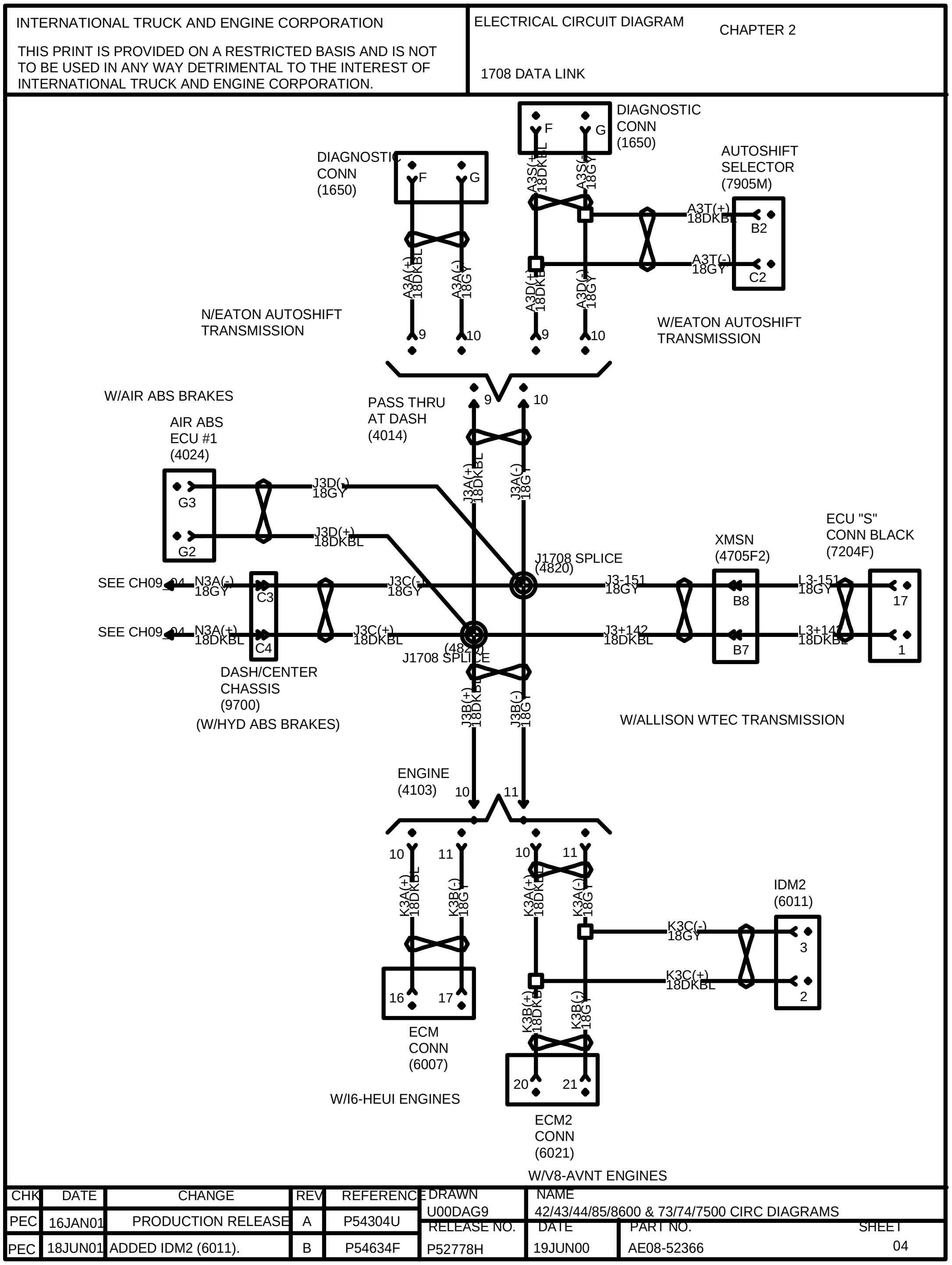
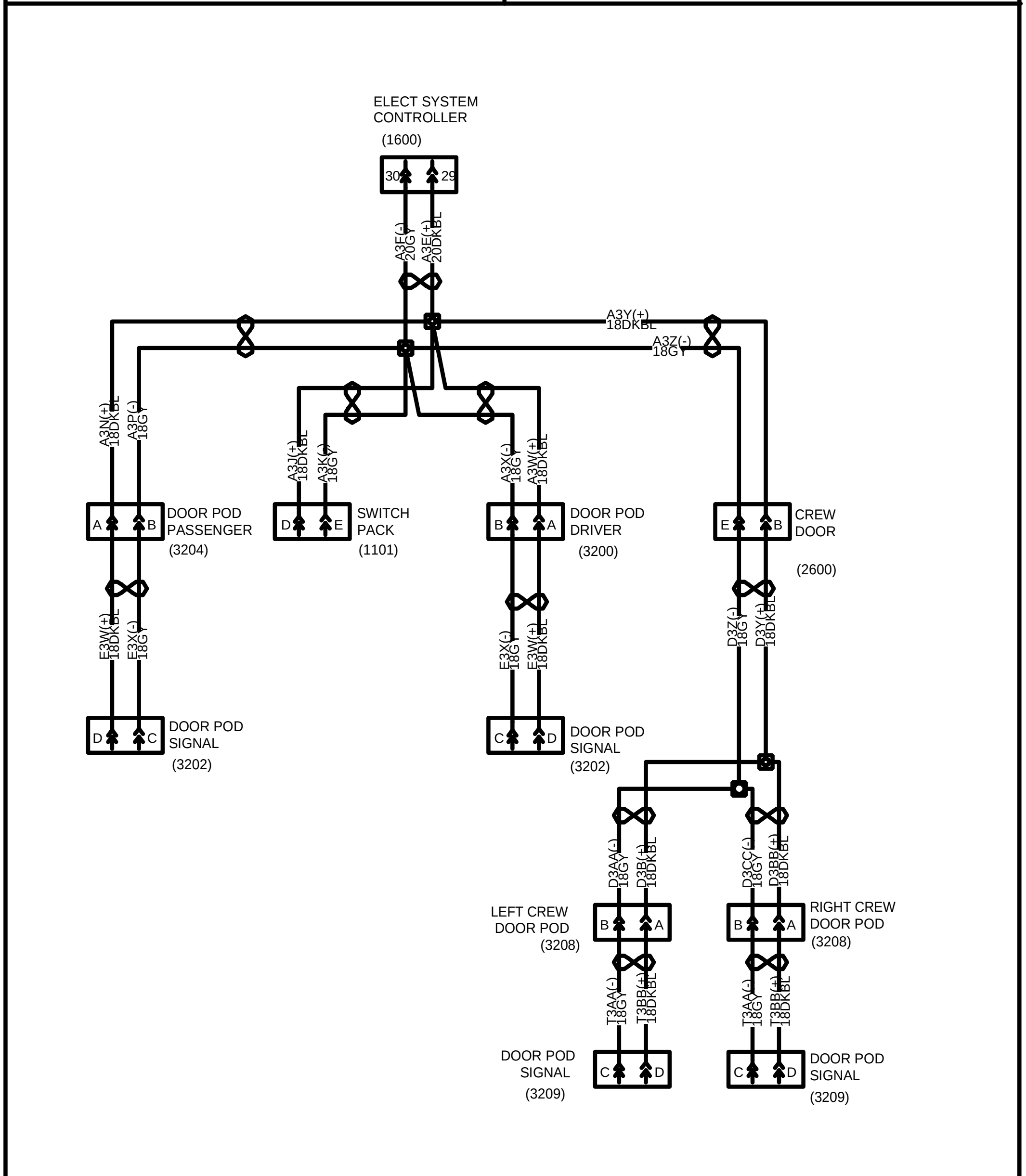


Figure 16 1708 Data Link

2.5. SWITCH DATA LINK, P. 5

INTERNATIONAL TRUCK AND ENGINE CORPORATION	ELECTRICAL CIRCUIT DIAGRAM	CHAPTER 2
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CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
					RELEASE NO.	DATE	PART NO.	SHEET
					P52778H	25AUG00	AE08-52366	05

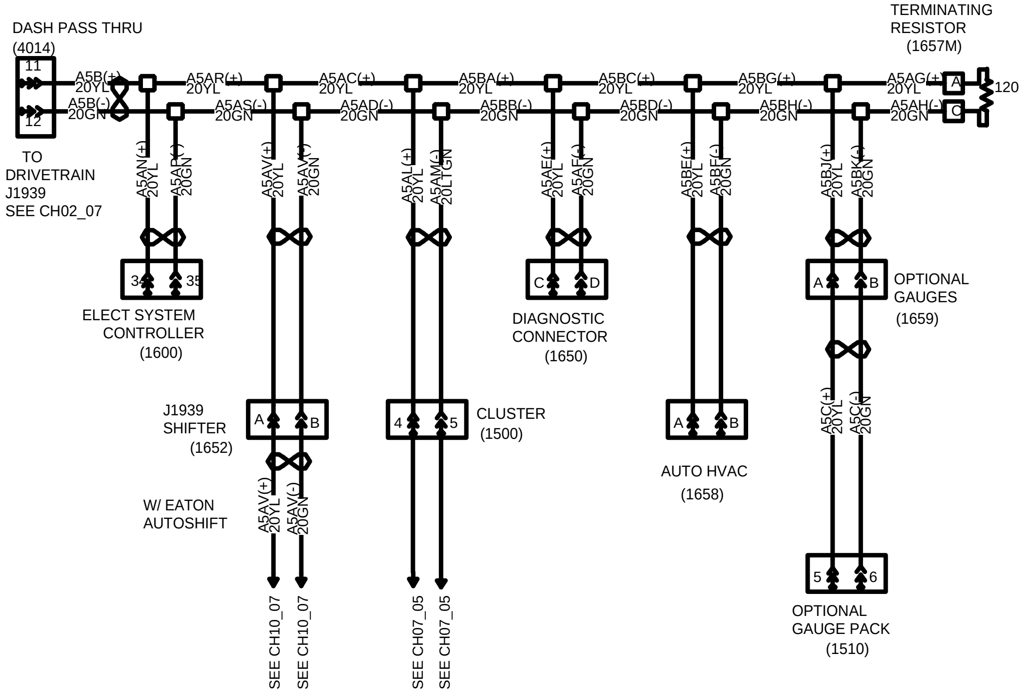
Figure 17 Switch Data Link

2.6. DRIVETRAIN 1939 DATA LINK (CAB), P. 6

INTERNATIONAL TRUCK AND ENGINE CORPORATION

ELECTRICAL CIRCUIT DIAGRAM CHAPTER 2

DRIVETRAIN 1939 DATA LINK (CAB)



CHK	DATE	CHANGE	REV	REFERENCE
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U
PEC	18JUN01	REVISED 4014 PIN OUTS.	B	P54634F

DRAWN	NAME		
U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
RELEASE NO.	DATE	PART NO.	SHEET
P52778H	09AUG00	AE08-52366	06

Figure 18 Drivetrain 1939 Data Link (Cab)

2.7. DRIVETRAIN 1939 DATA LINK (CHASSIS), P. 7

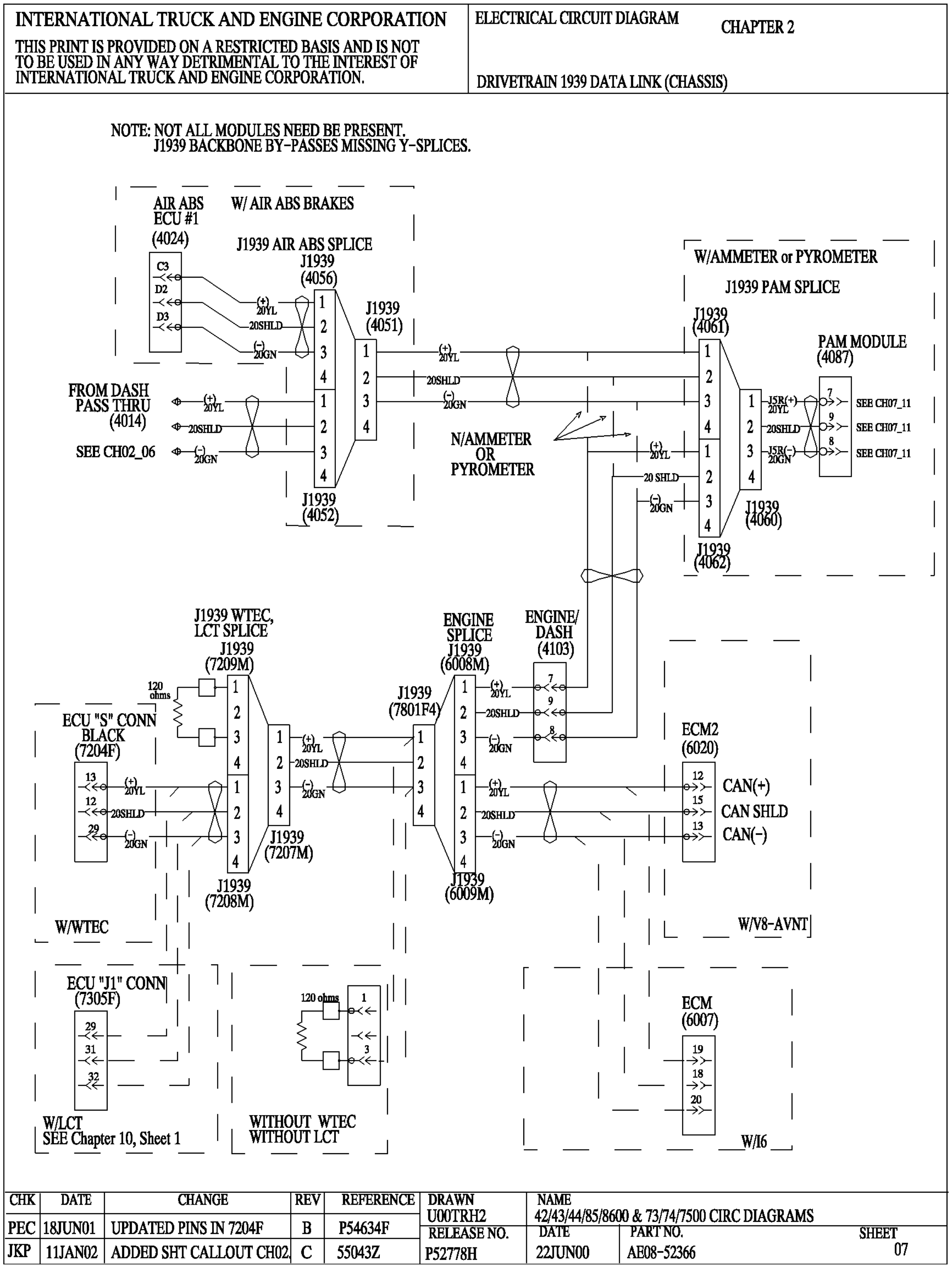
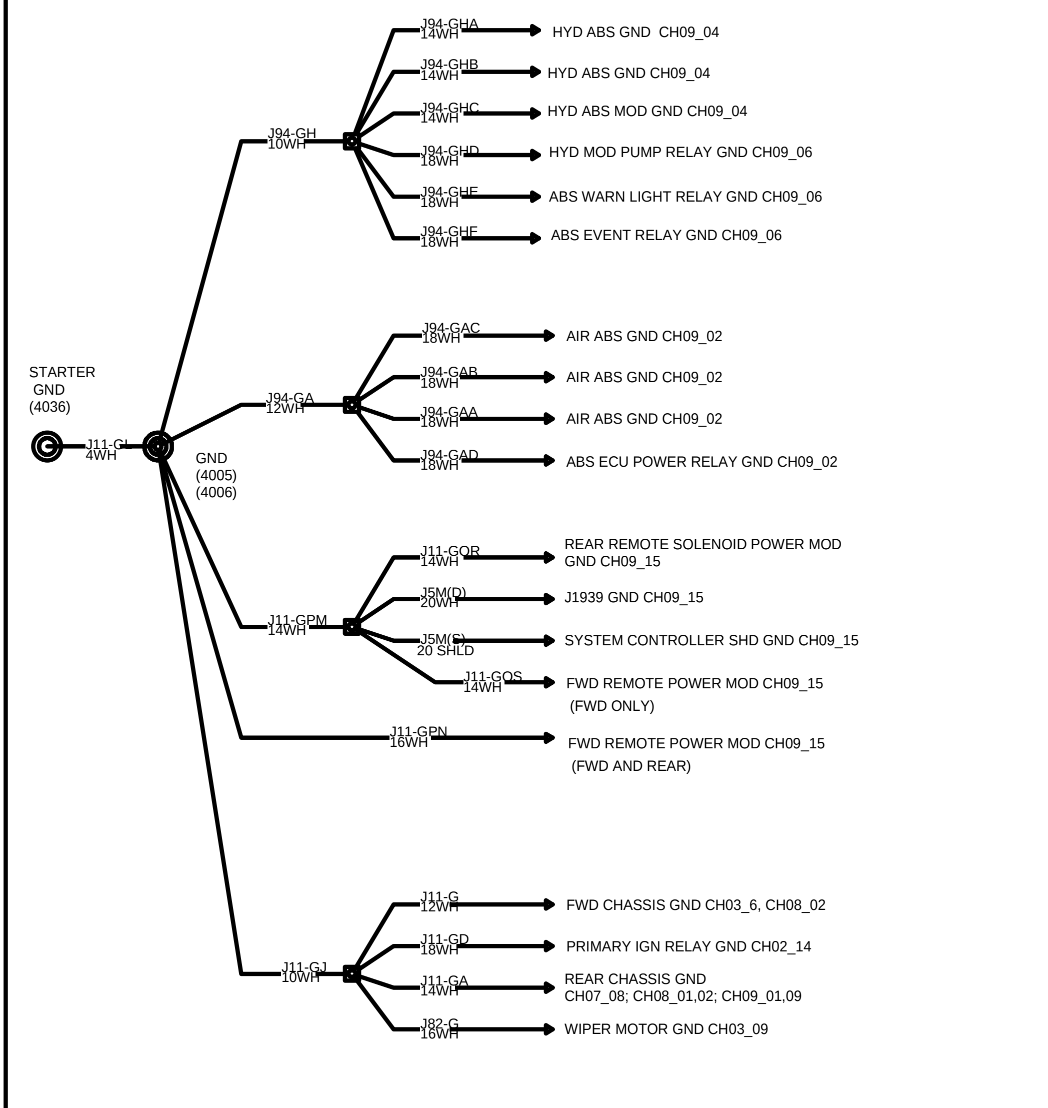


Figure 19 Drivetrain 1939 Data Link (Chassis)

2.8. GROUNDS CHASSIS, P. 8

INTERNATIONAL TRUCK AND ENGINE CORPORATION THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.	ELECTRICAL CIRCUIT DIAGRAM CHAPTER 2 GROUNDS, CHASSIS



CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS

RELEASE NO.	DATE	PART NO.	SHEET
52778H	26MAY00	AE08-52366	08

Figure 20 Grounds Chassis

2.9. GROUNDS CHASSIS, P. 9

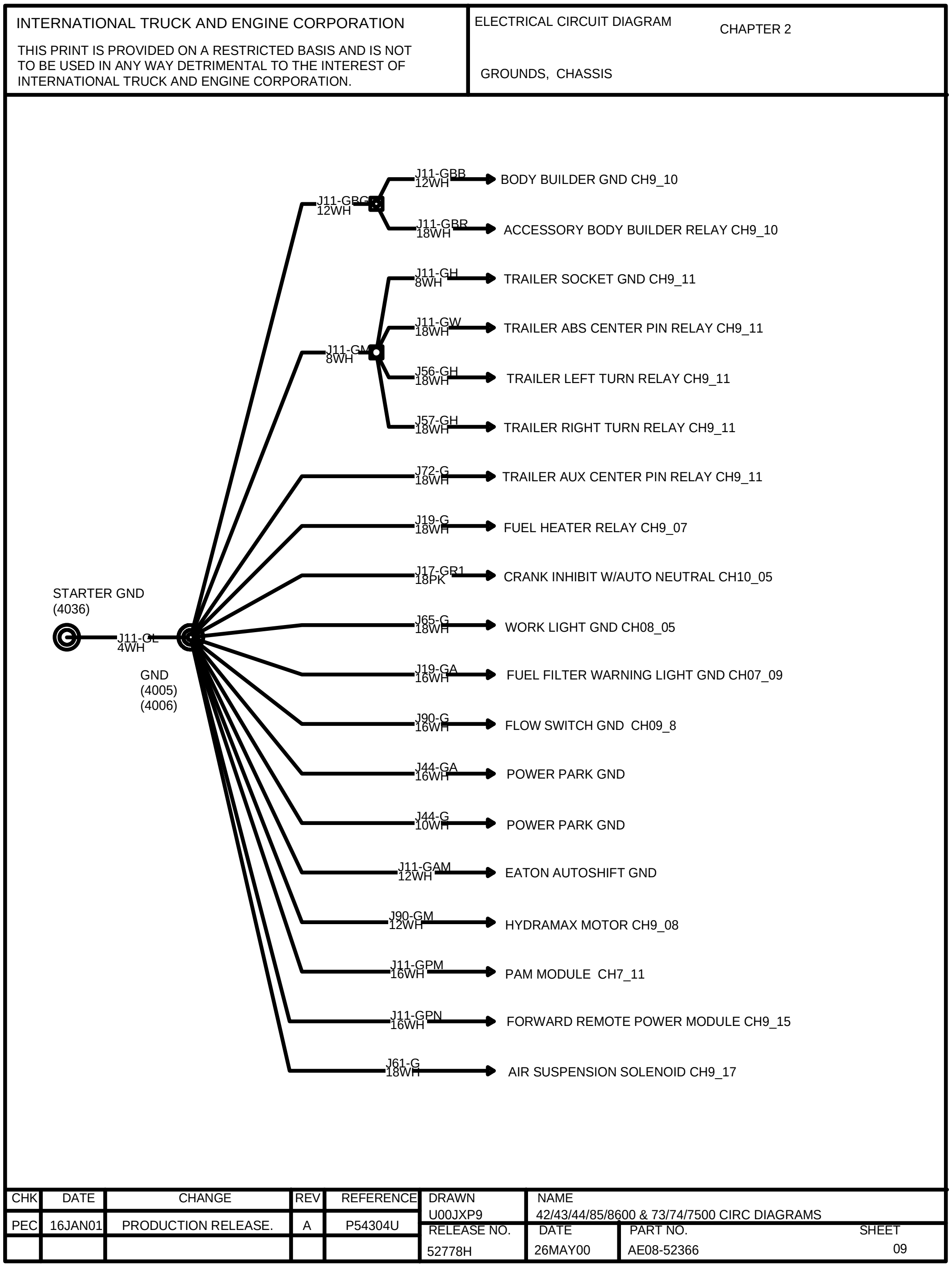


Figure 21 Grounds Chassis (Cont.)

2.10. GROUNDS IP, P. 10

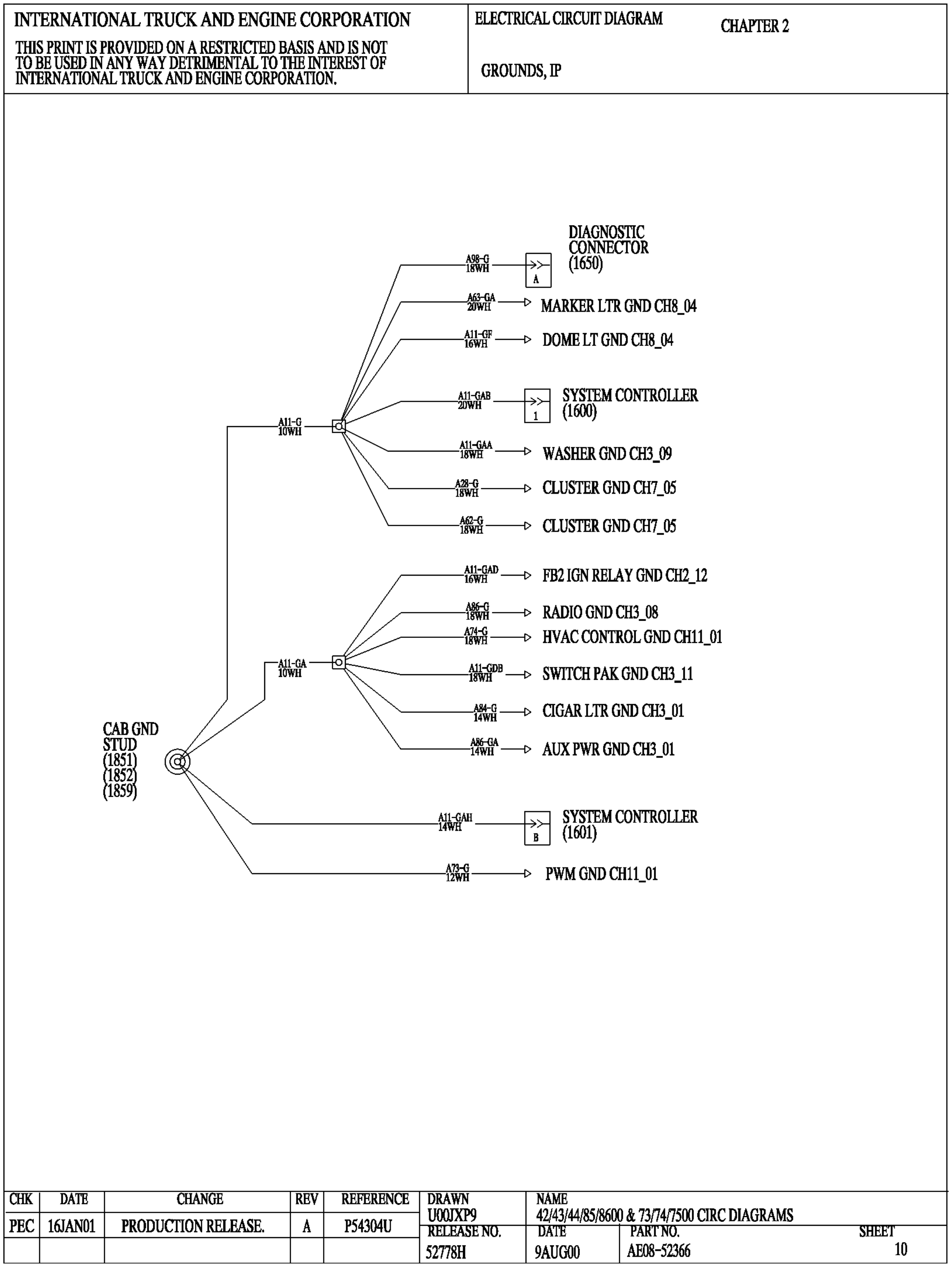


Figure 22 Grounds IP

2.11. GROUNDS IP, P. 11

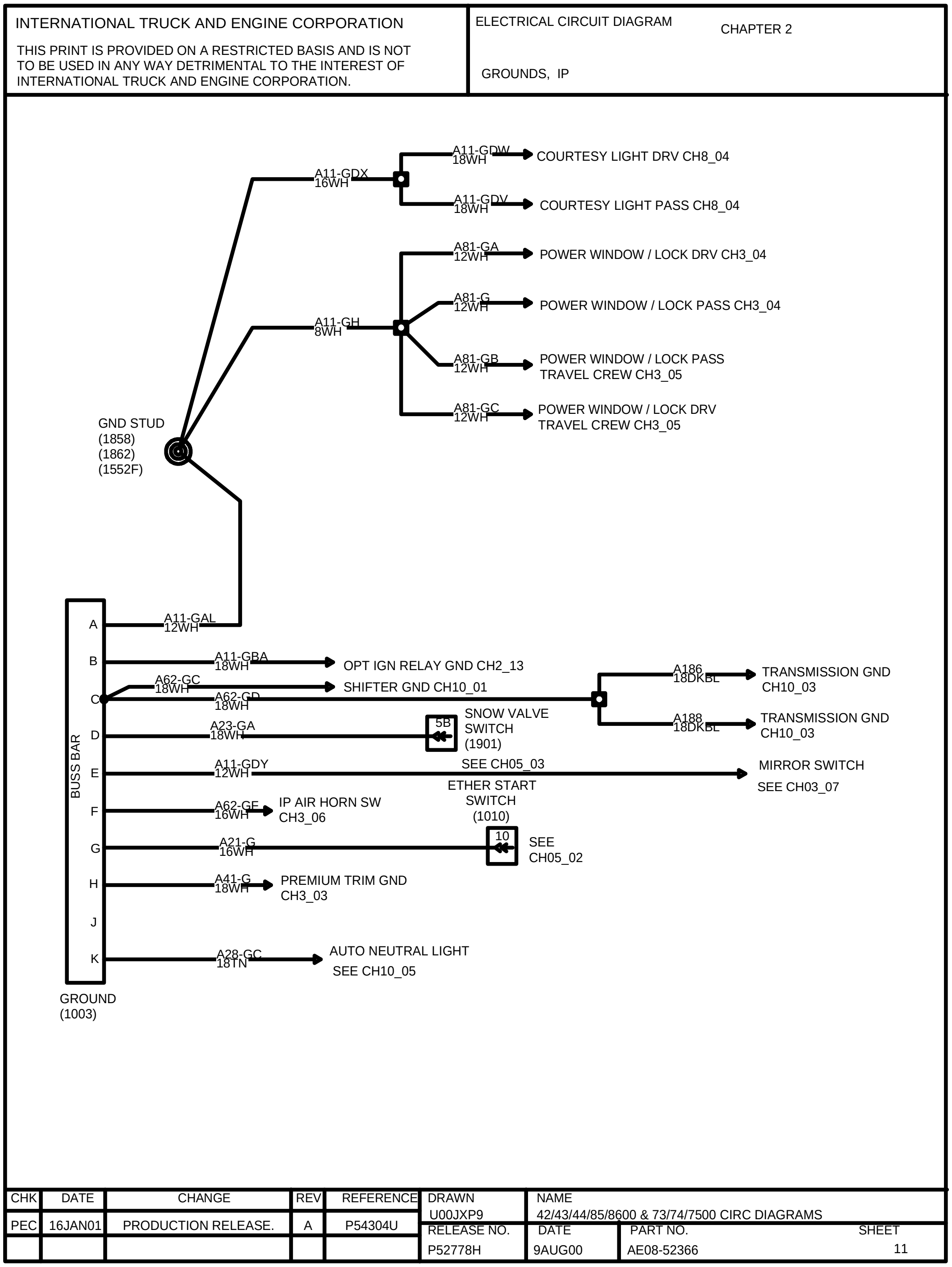


Figure 23 Grounds IP

2.12. IGNITION CAB, P. 12

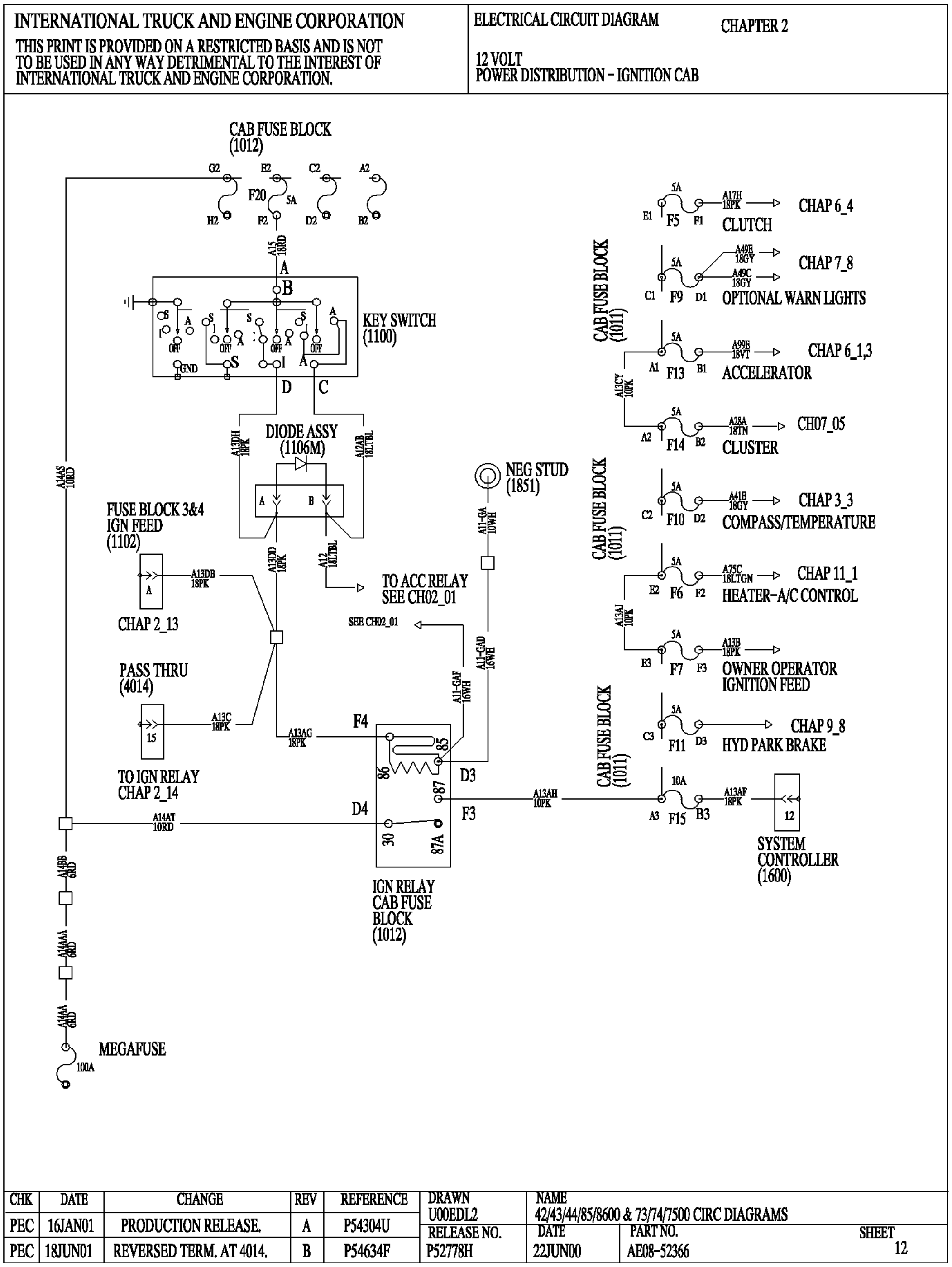


Figure 24 Ignition Cab

2.13. IGNITION CAB, P. 13

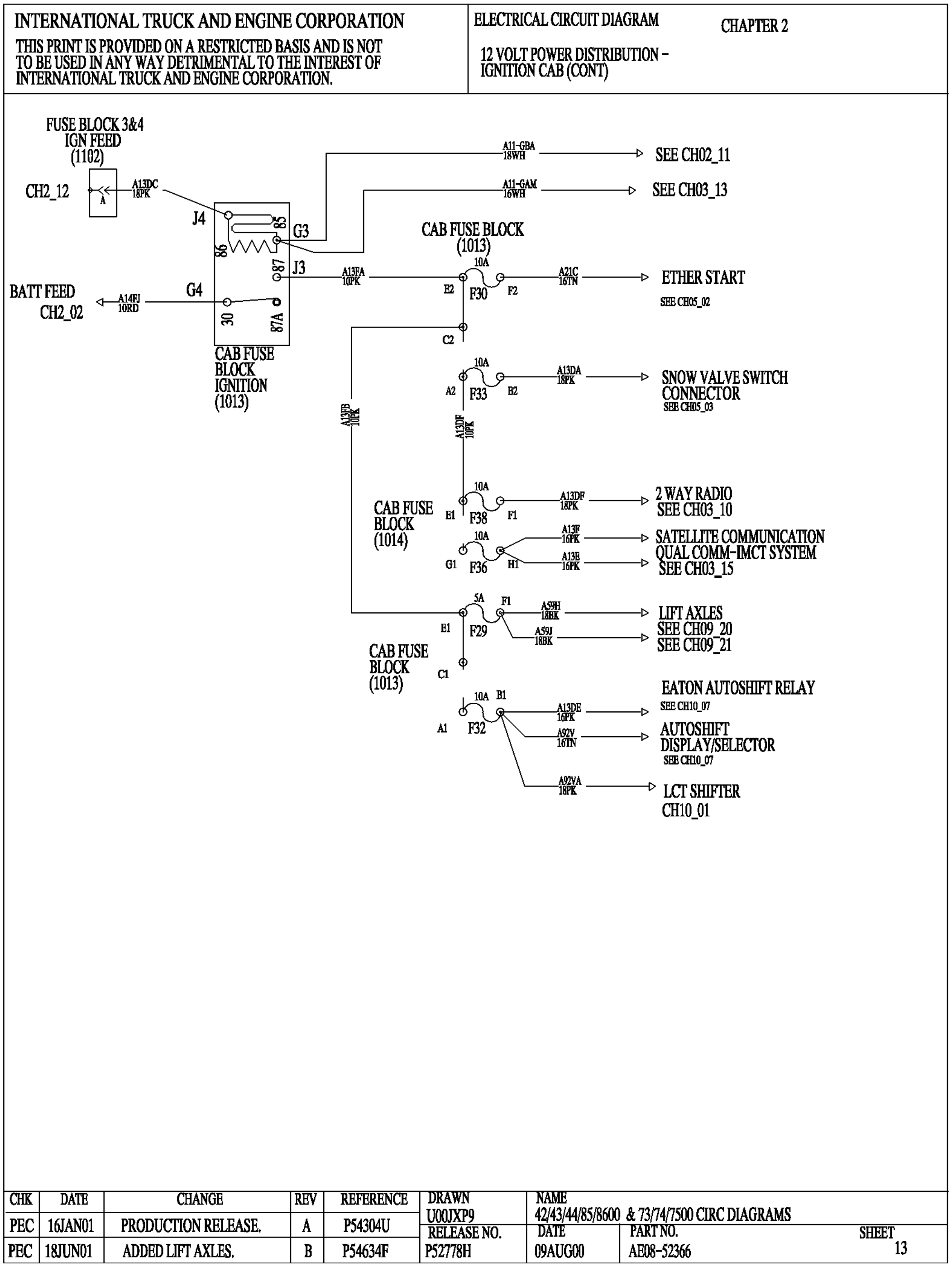


Figure 25 Ignition Cab (Cont.)

2.14. IGNITION FEEDS, CHASSIS, P. 14

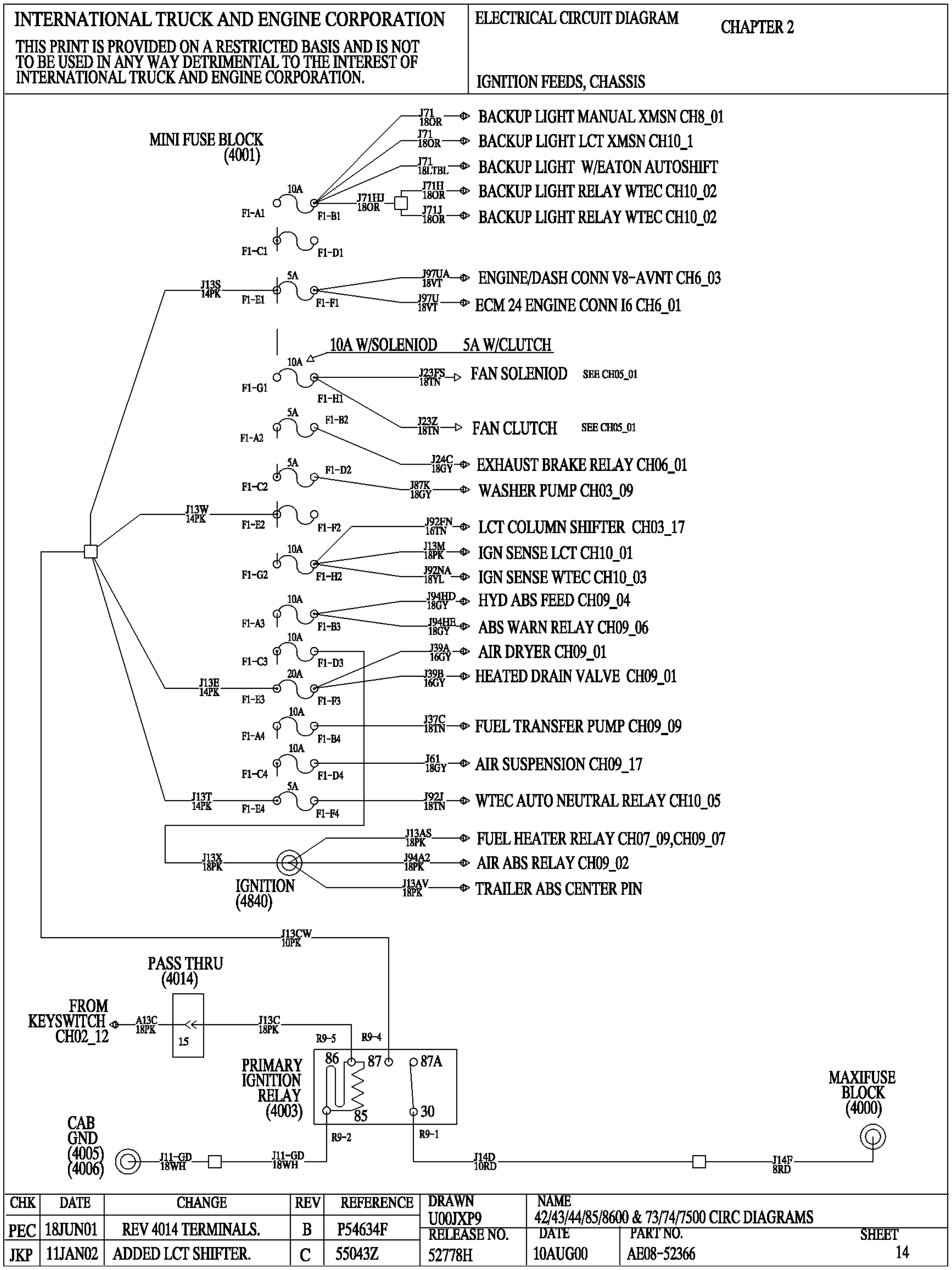


Figure 26 Ignition Feeds, Chassis

2.15. START, P. 15

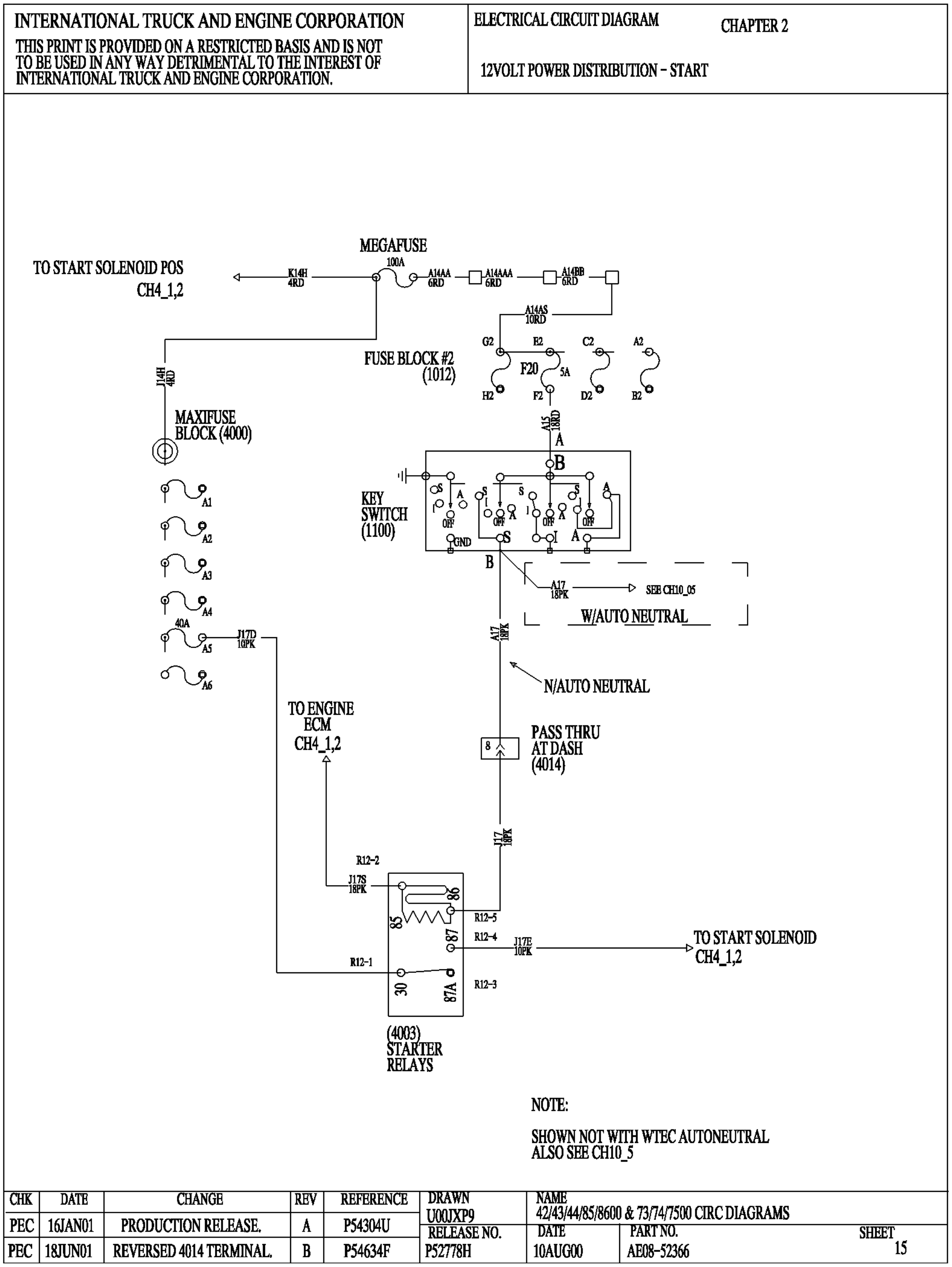


Figure 27 Start

3. CAB ACCESSORIES (CHAPTER 3)

3.1. CIGAR LIGHTER AND POWER FEEDS, P. 1

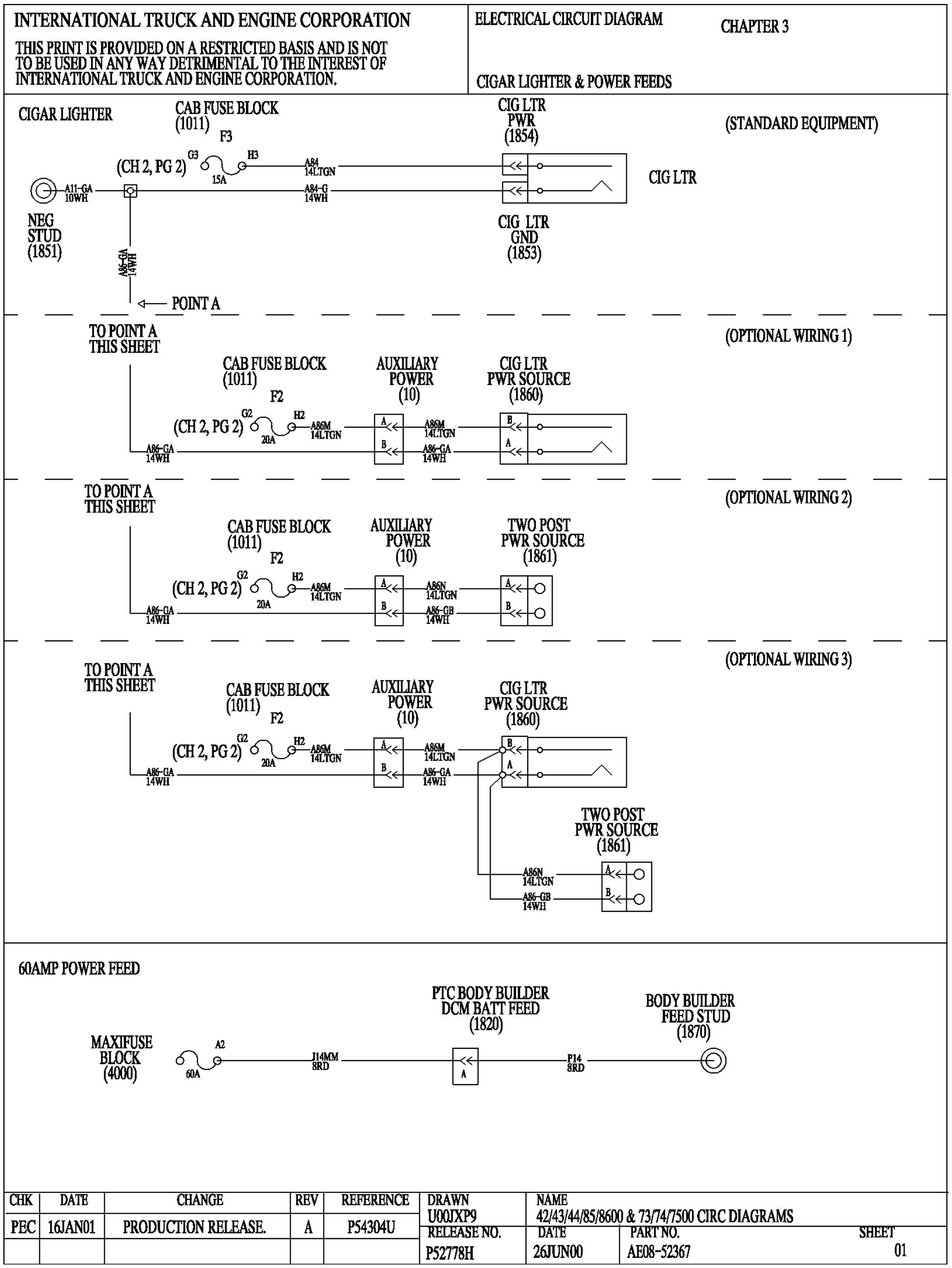
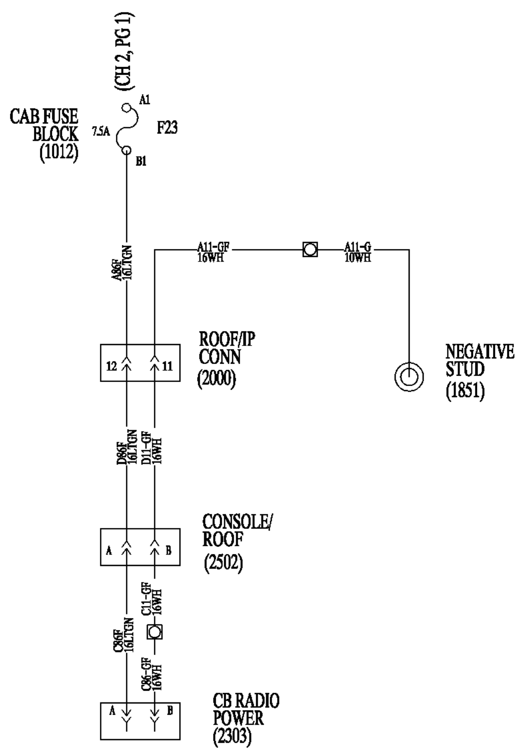


Figure 28 Cigar Lighter and Power Feeds

3.2. CB POWER, P. 2

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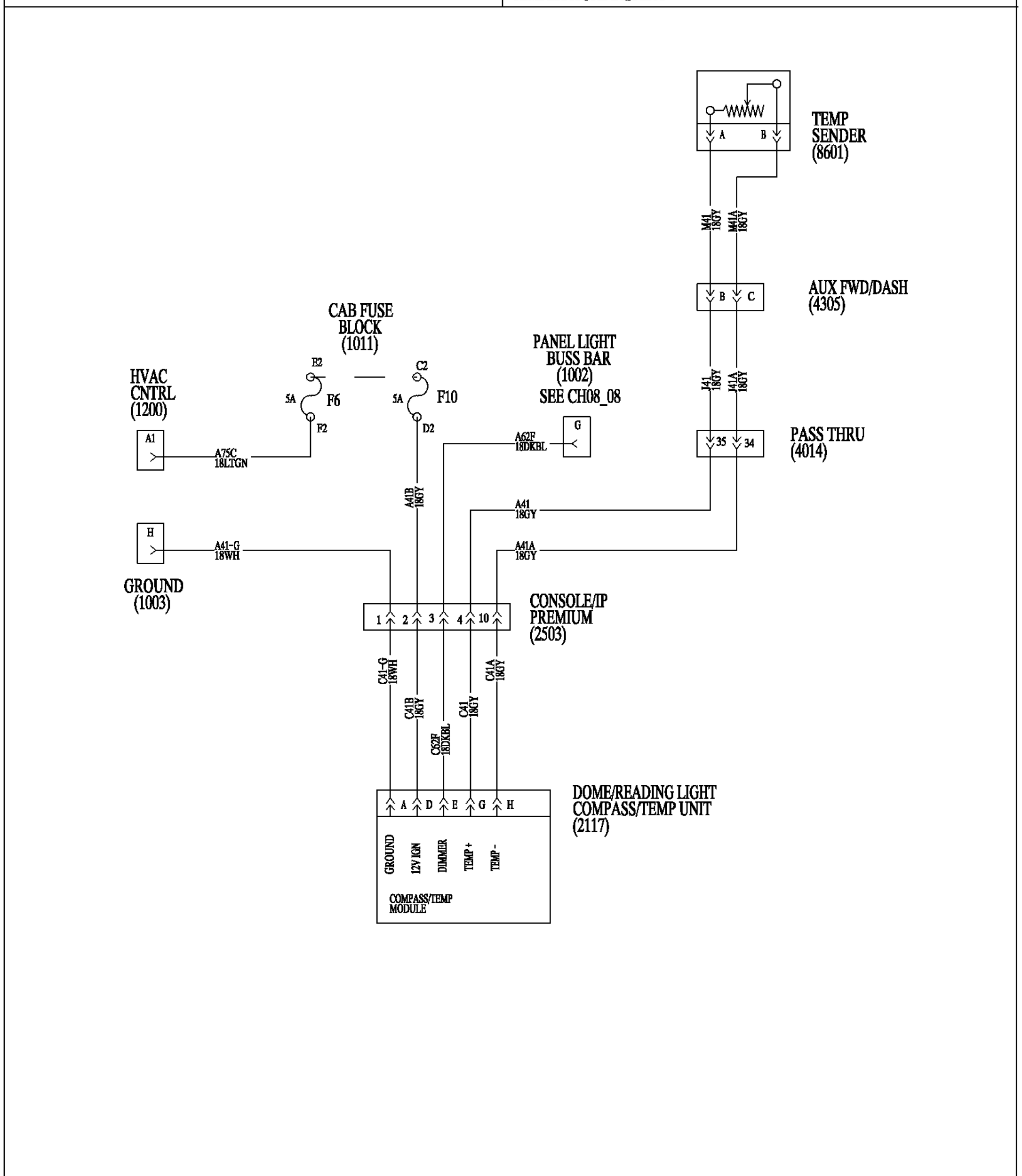


CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00EDL2	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
					RELEASE NO.	DATE	PART NO.	SHEET
					P52778H	25AUG00	AE08-52367	02

Figure 29 CB Power

3.3. COMPASS AND TEMPERATURE DISPLAY, P. 3

INTERNATIONAL TRUCK AND ENGINE CORPORATION	ELECTRICAL CIRCUIT DIAGRAM	CHAPTER 3
THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.	COMPASS AND TEMPERATURE DISPLAY	



CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
PEC	16JAN01	PRODUCTION RELEASE.	A	P54304U	U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
					RELEASE NO.	DATE	PART NO.	SHEET
					P52778H	25AUG00	AE08-52367	03

Figure 30 Compass and Temperature Display

3.4. FRONT DOORS WINDOWS AND LOCKS (POWER), P. 4

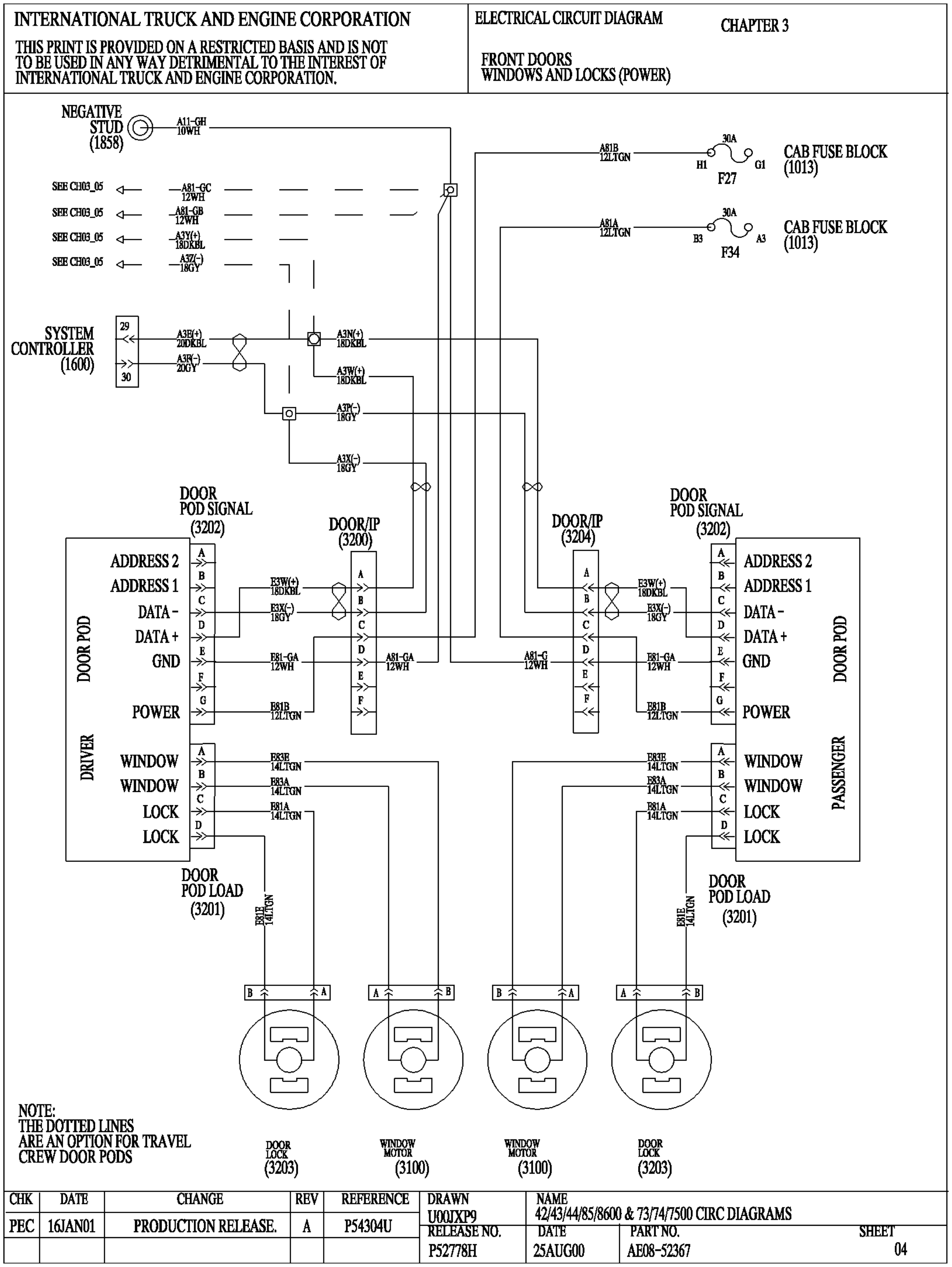


Figure 31 Front Doors Windows and Locks (Power)

3.5. CREW DOORS WINDOWS AND LOCKS (POWER), P. 5

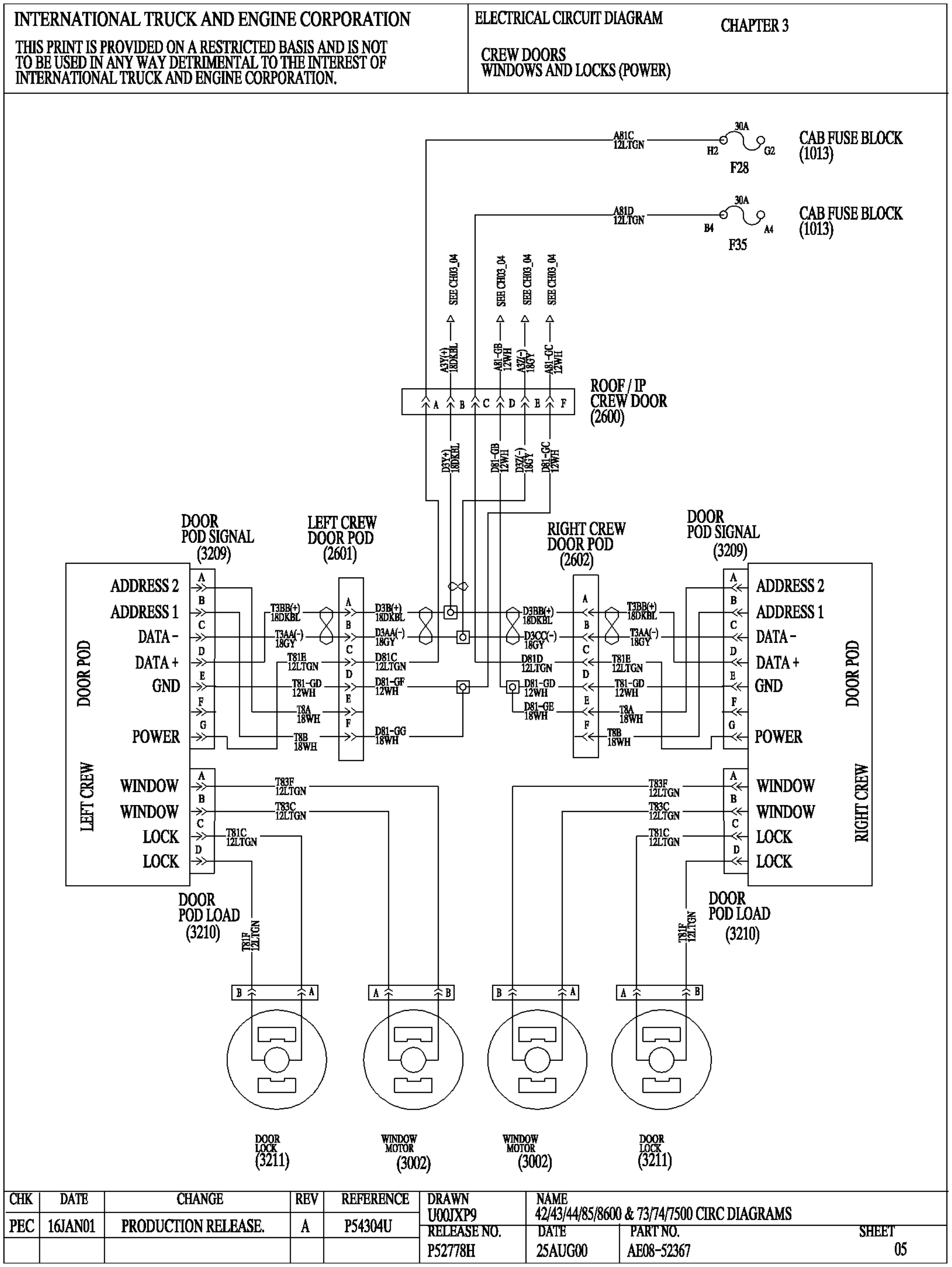


Figure 32 Crew Doors Windows and Locks (Power)

3.6. HORN, DUAL ELECTRIC, P. 6

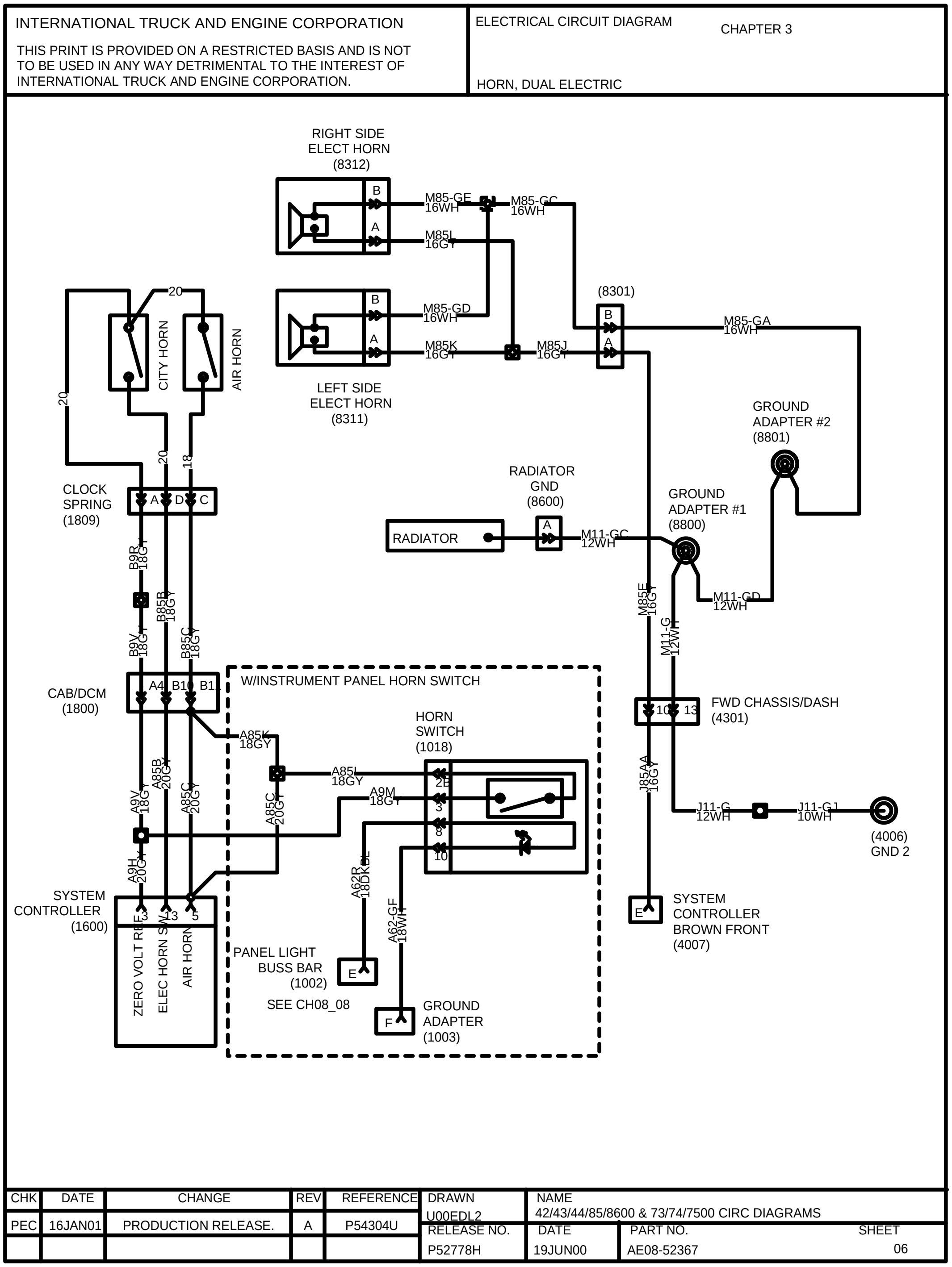


Figure 33 Horn, Dual Electric

3.7. MIRRORS (HEATED, LIGHTED AND POWER), P. 7

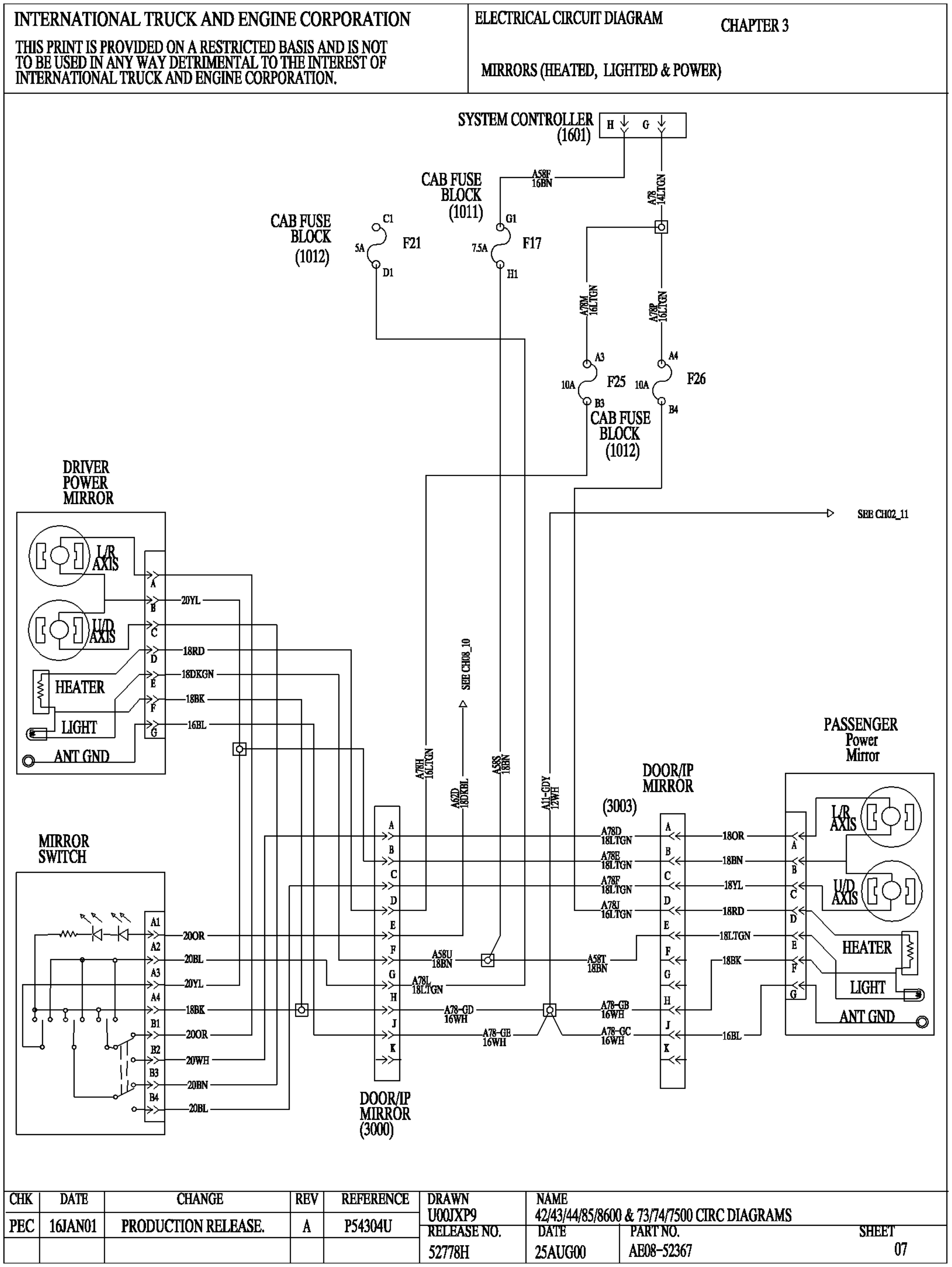


Figure 34 Mirrors (Heated, Lighted and Power)

3.8. RADIO (ENTERTAINMENT), SPEAKERS, P. 8

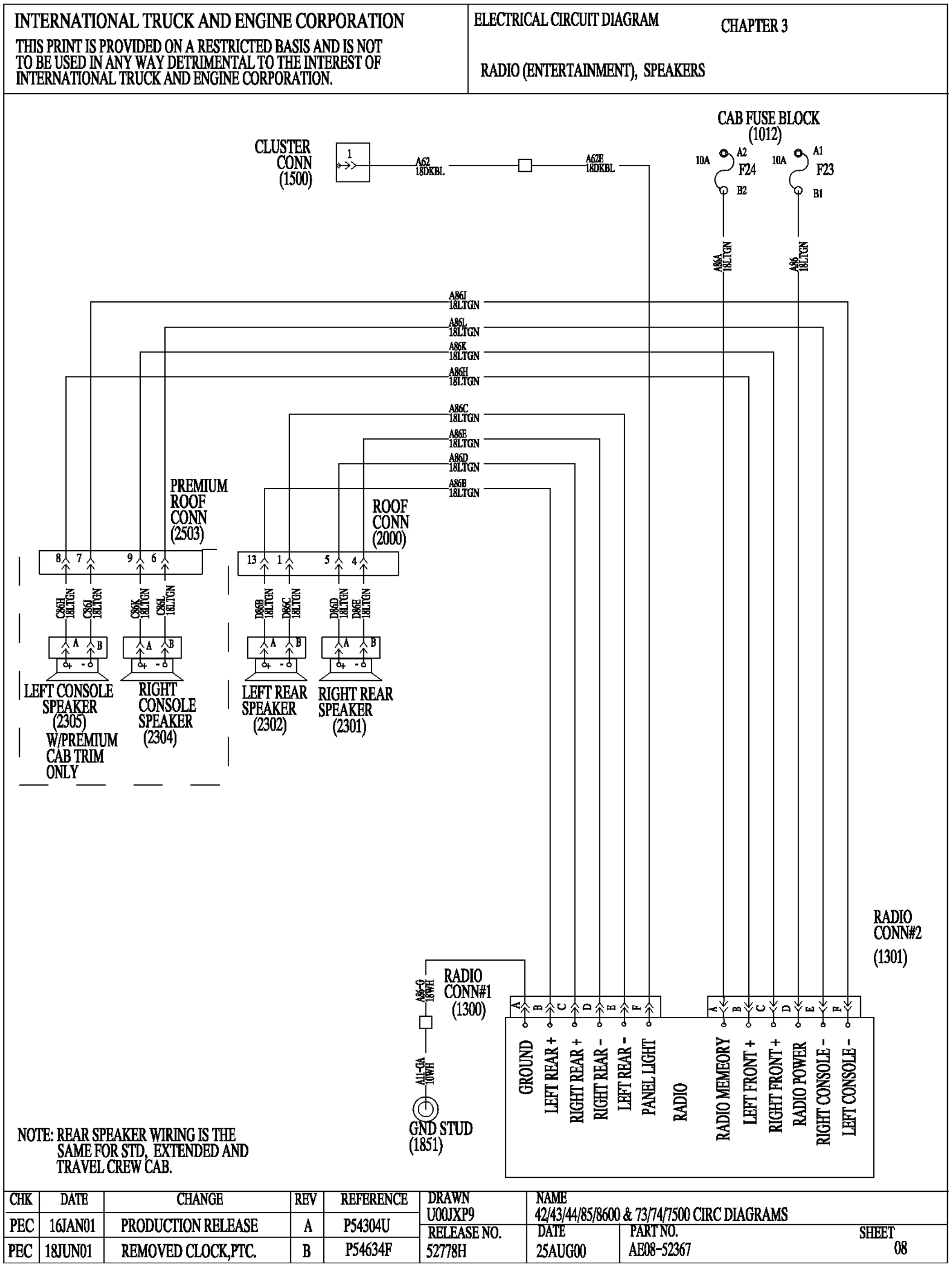


Figure 35 Radio (Entertainment), Speakers

3.9. WINDSHIELD WIPER AND WASHER PUMP, P. 9

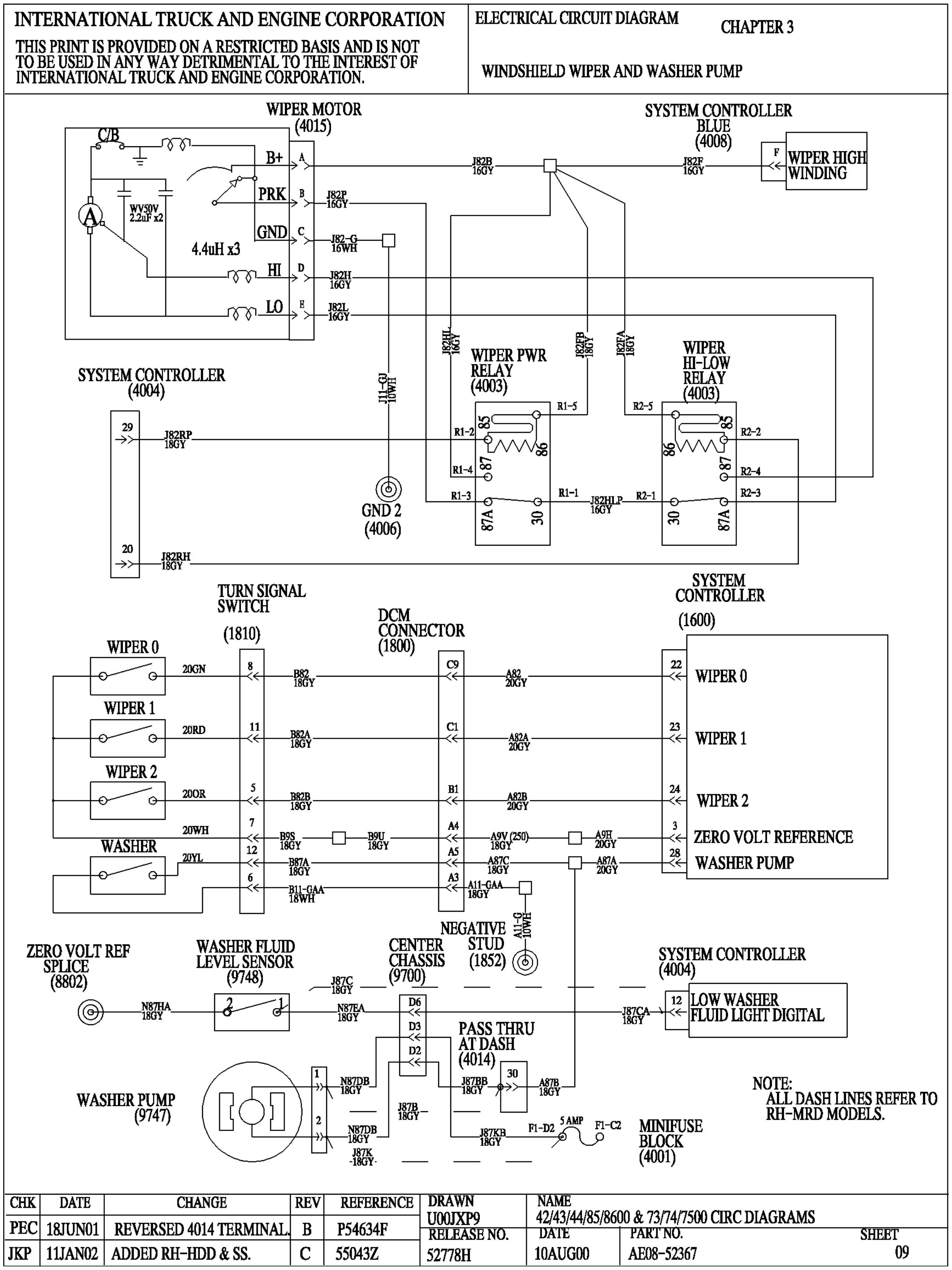


Figure 36 Windshield Wiper and Washer Pump

3.10. 2–WAY RADIO, P. 10

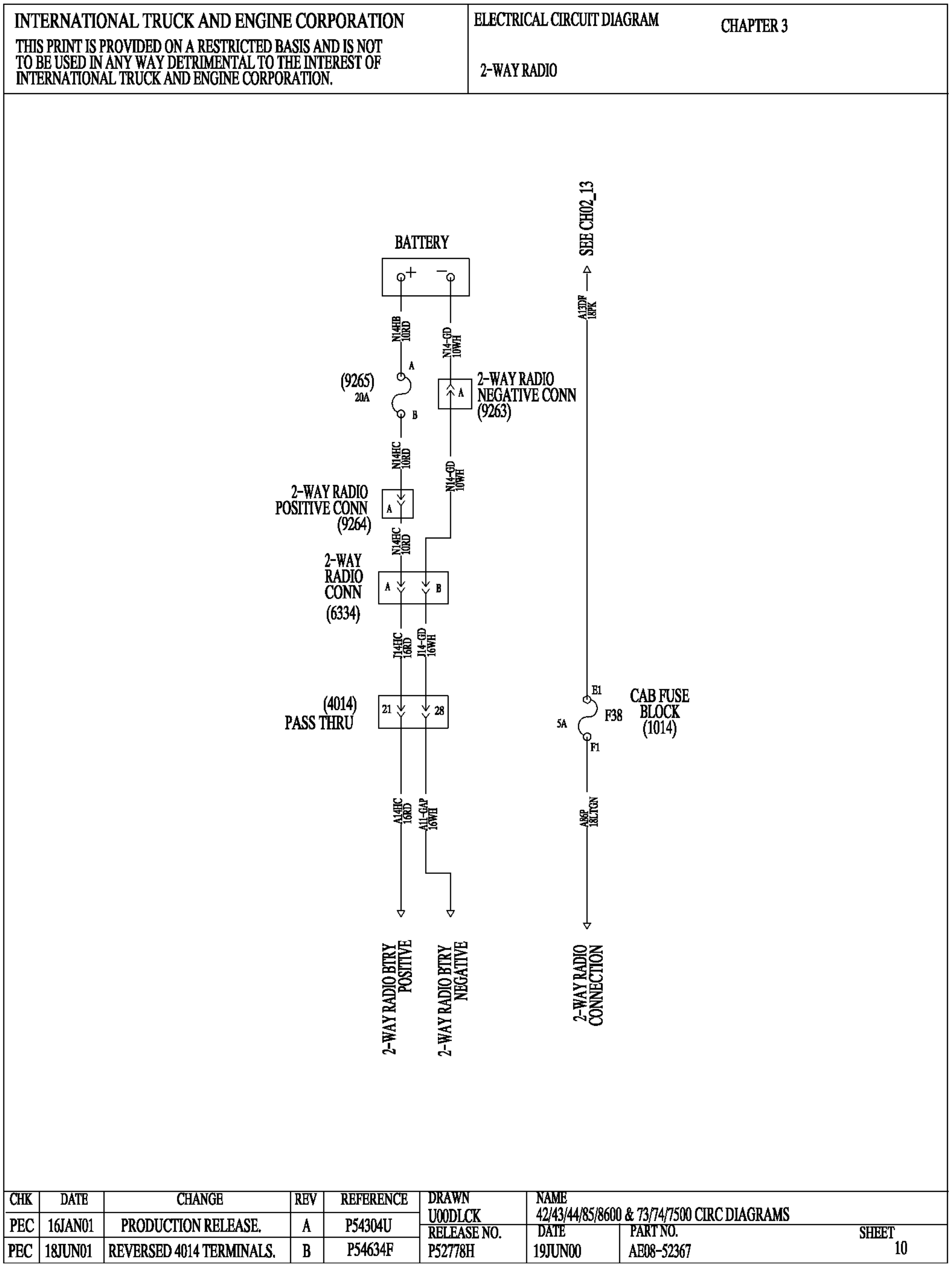


Figure 37 2–Way Radio

3.11. SWITCH PACK, OPTIONAL GAUGE PACK, P. 11

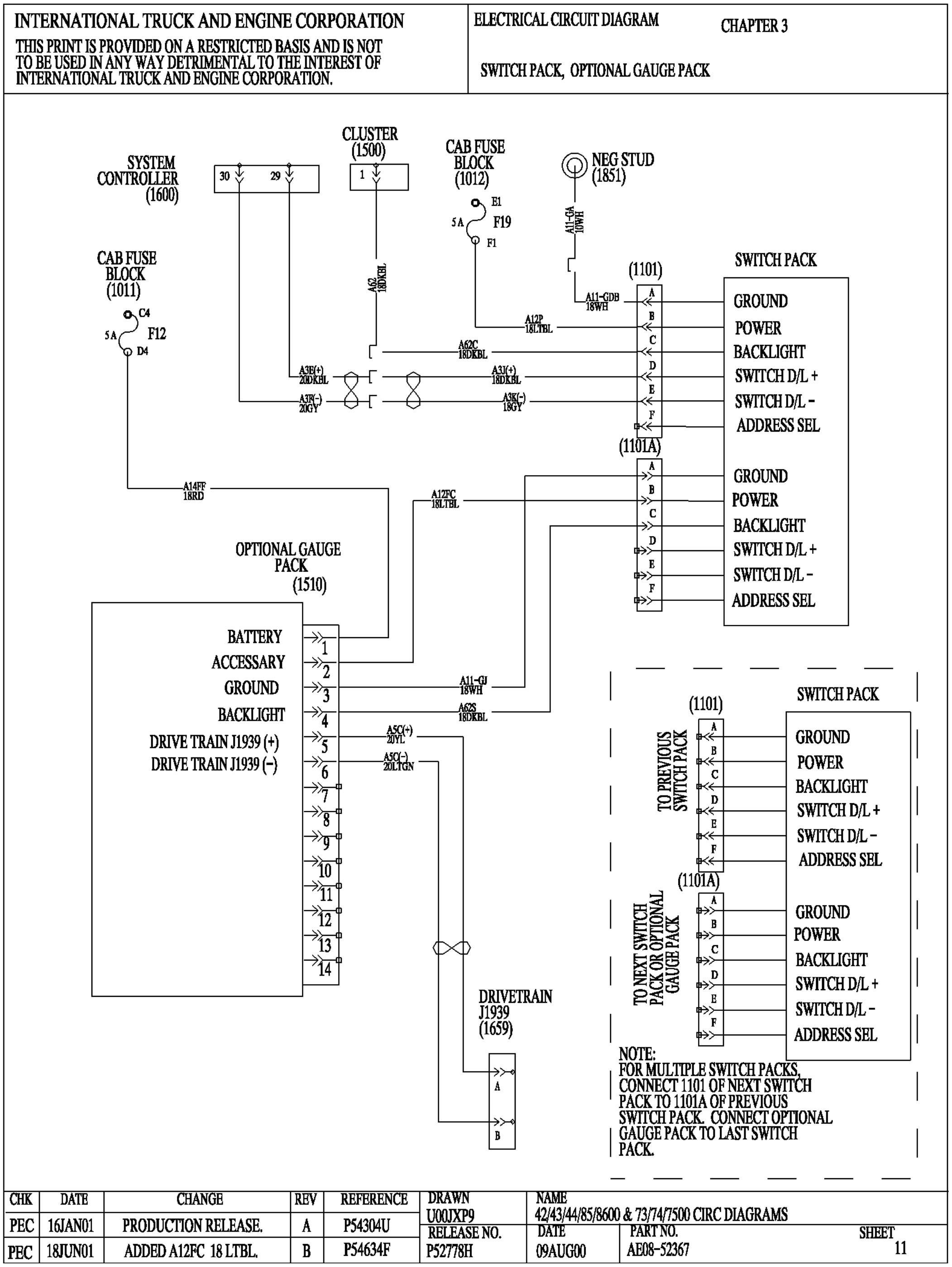


Figure 38 Switch Pack, Optional Gauge Pack

3.12. LIGHTED AIR SHIELD, P. 12

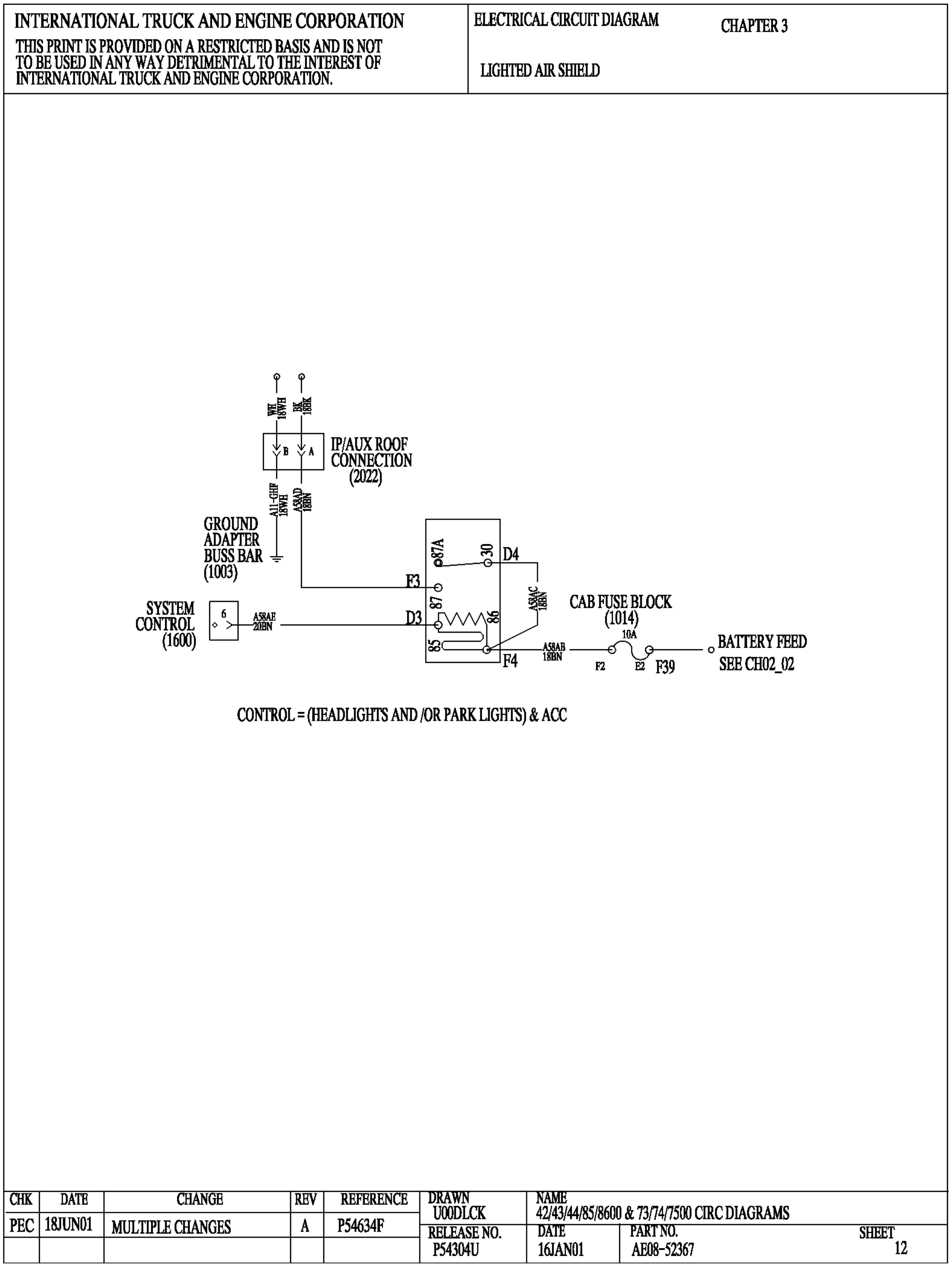


Figure 39 Lighted Air Shield

3.13. ROOF AUX. LOAD, P. 13

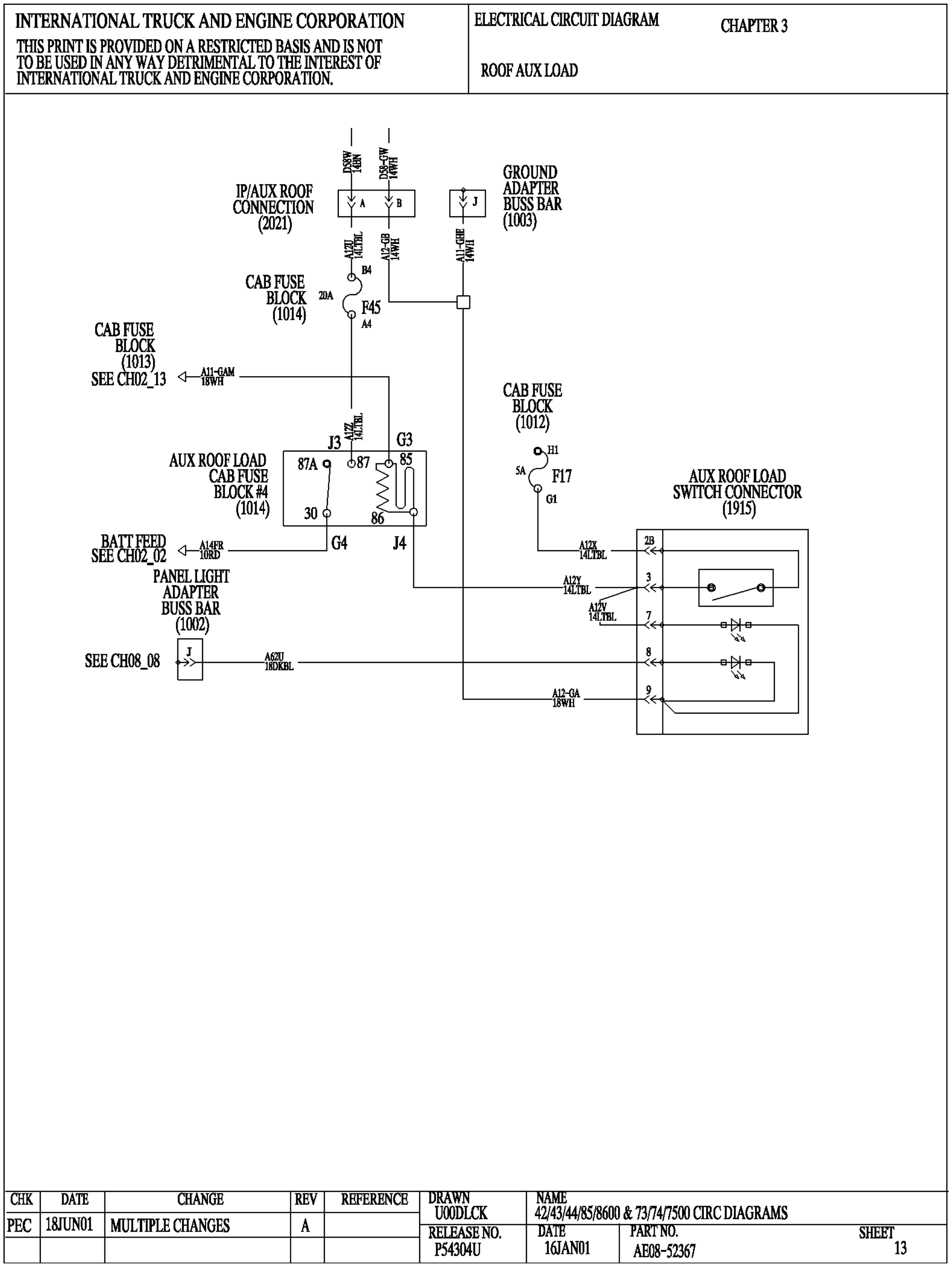


Figure 40 Roof Aux. Load

3.14. SATELLITE COMMUNICATION QUALCOMM-MCT AND IMCT SYSTEMS, P. 14

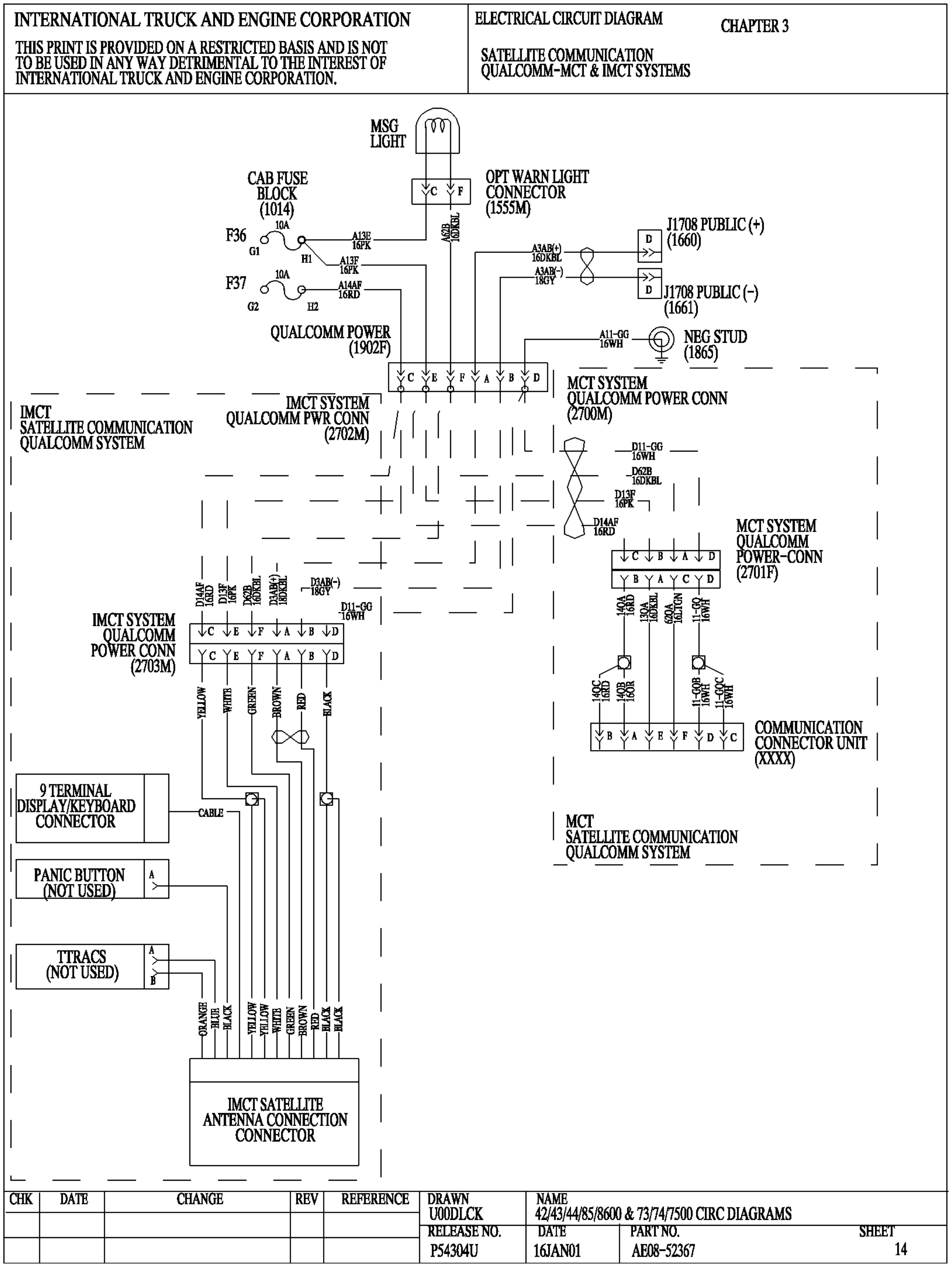


Figure 41 Satellite Communication Qualcomm-MCT and IMCT Systems

3.15. SELF CONTAINED AIR SEAT, P. 15

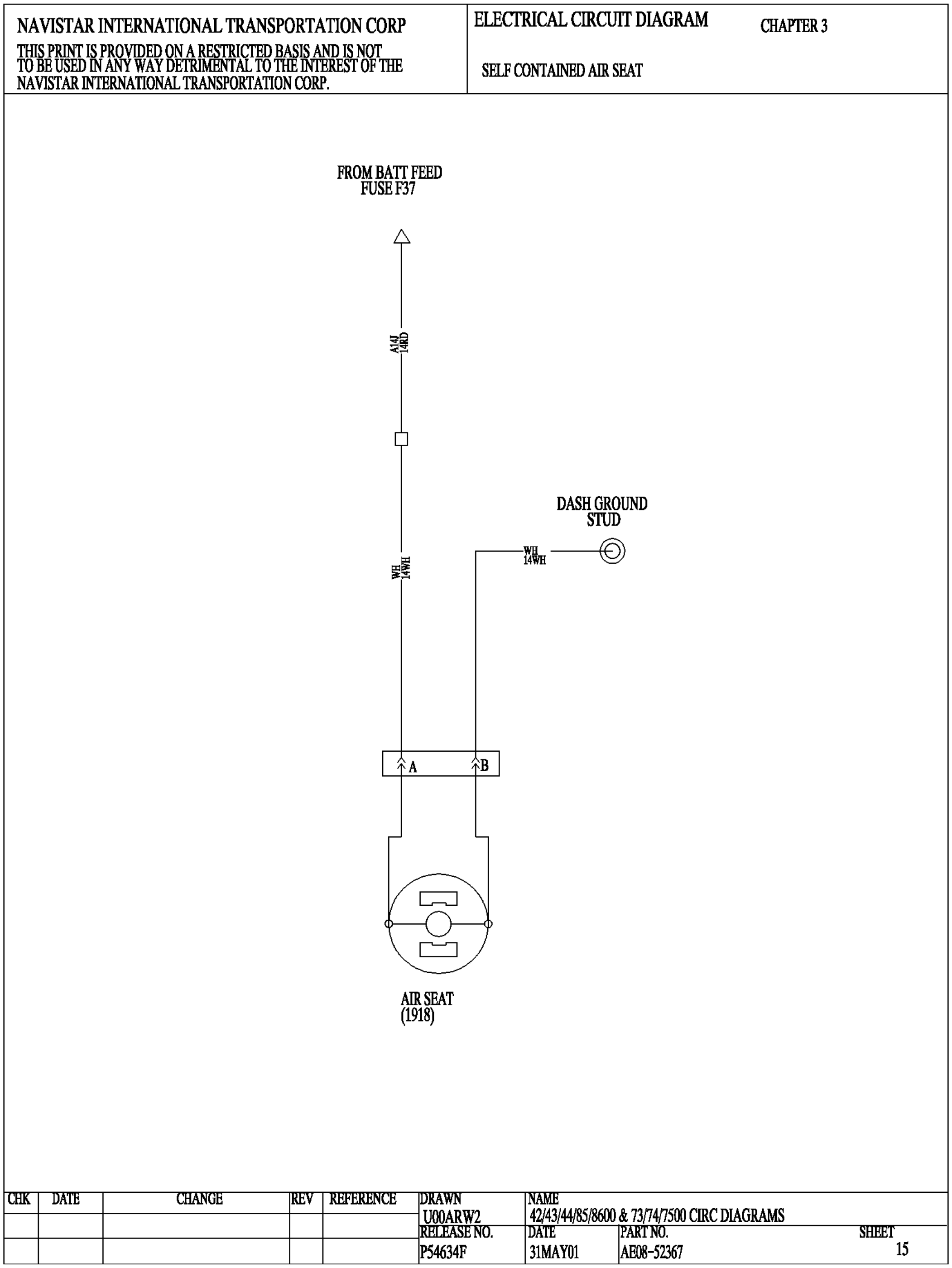


Figure 42 Self Contained Air Seat

3.16. DIGITAL CLOCK PTC, P. 16

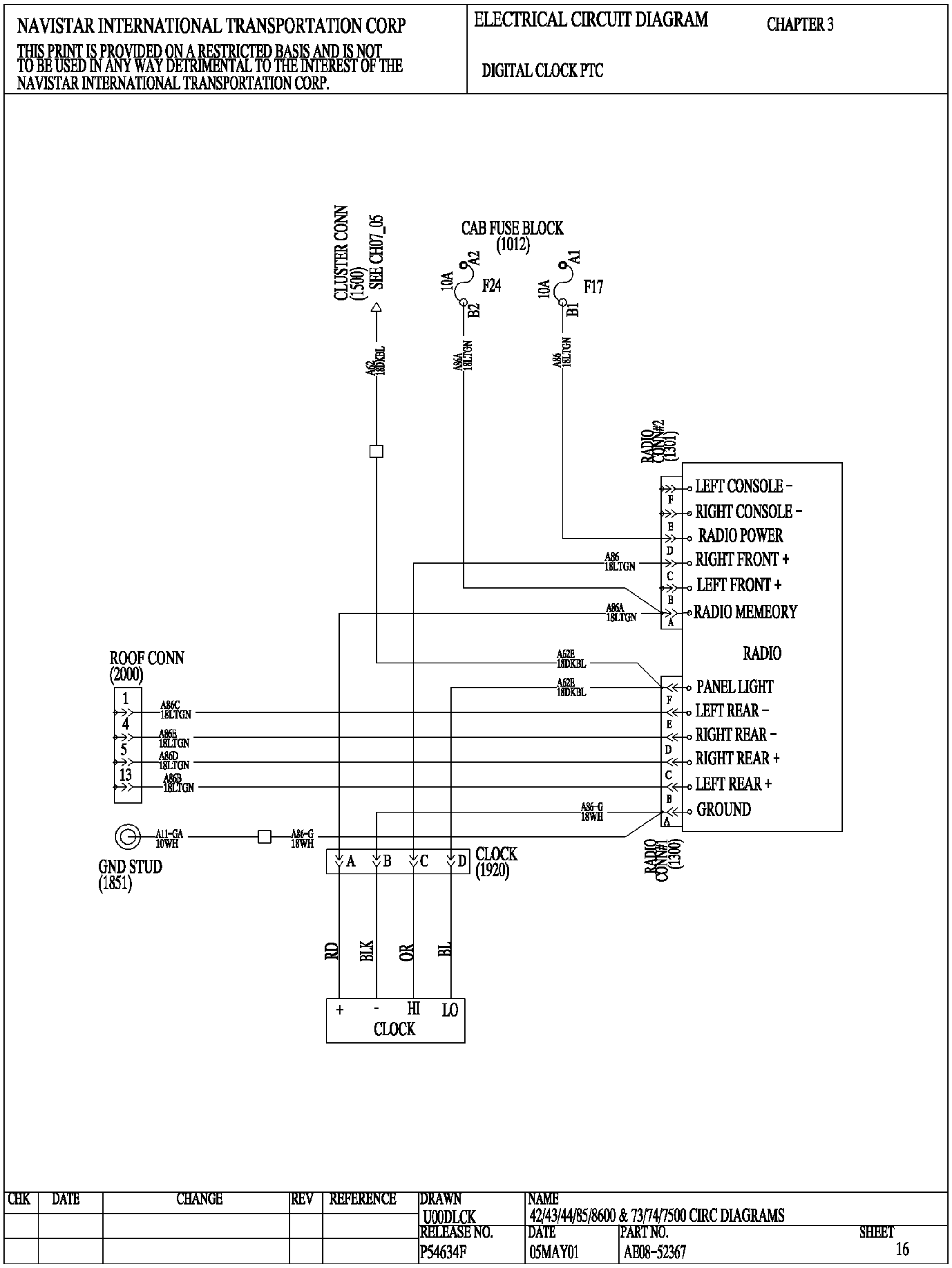


Figure 43 Digital Clock PTC

3.17. TRANSMISSION ALLISON LCT COLUMN SHIFTER, P. 17

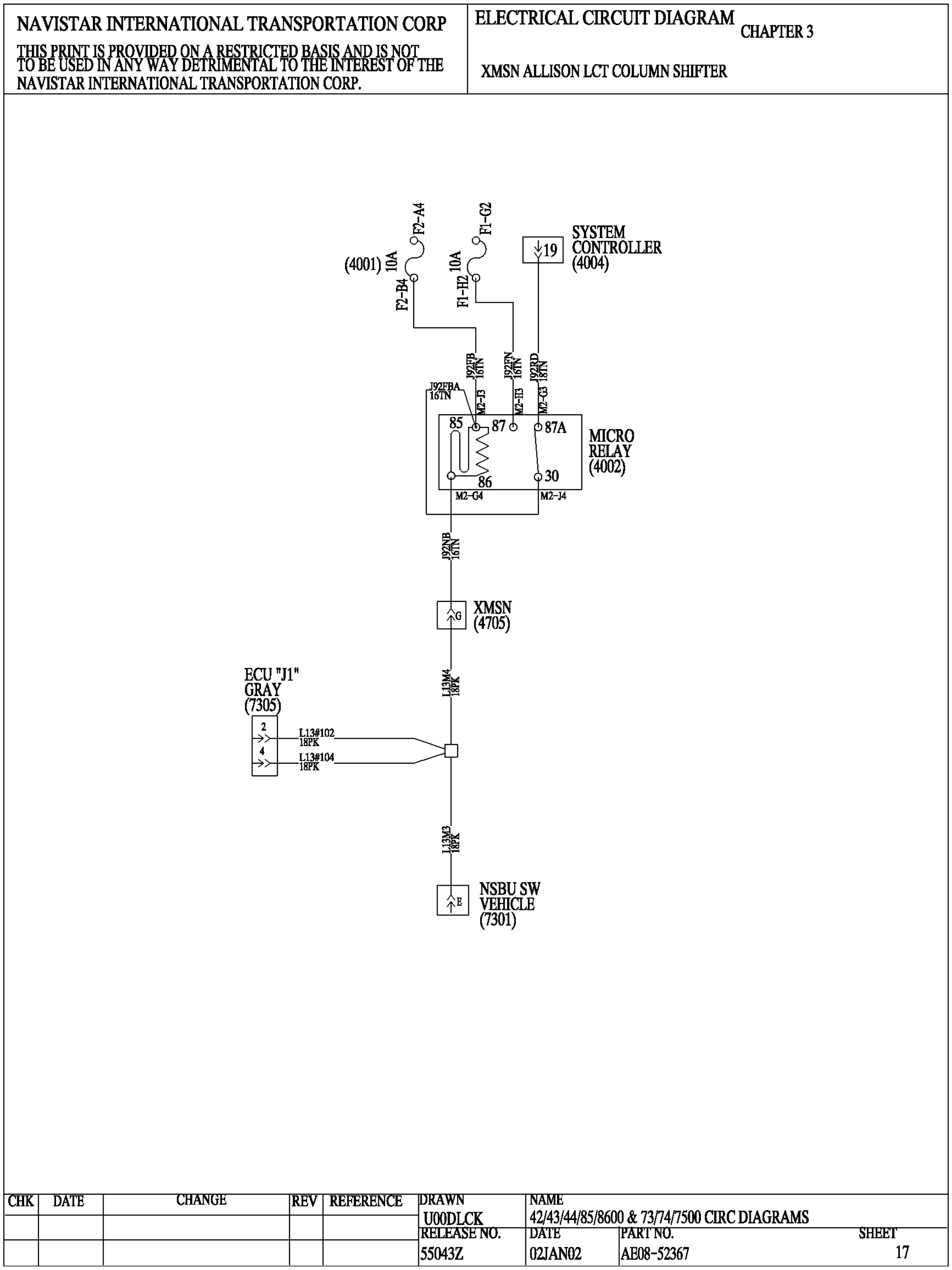


Figure 44 Transmission Allison LCT Column Shifter

4. 12V CHARGING + CRANKING SYSTEM (CHAPTER 4)

4.1. I6 HEUI ENGINES, P. 1

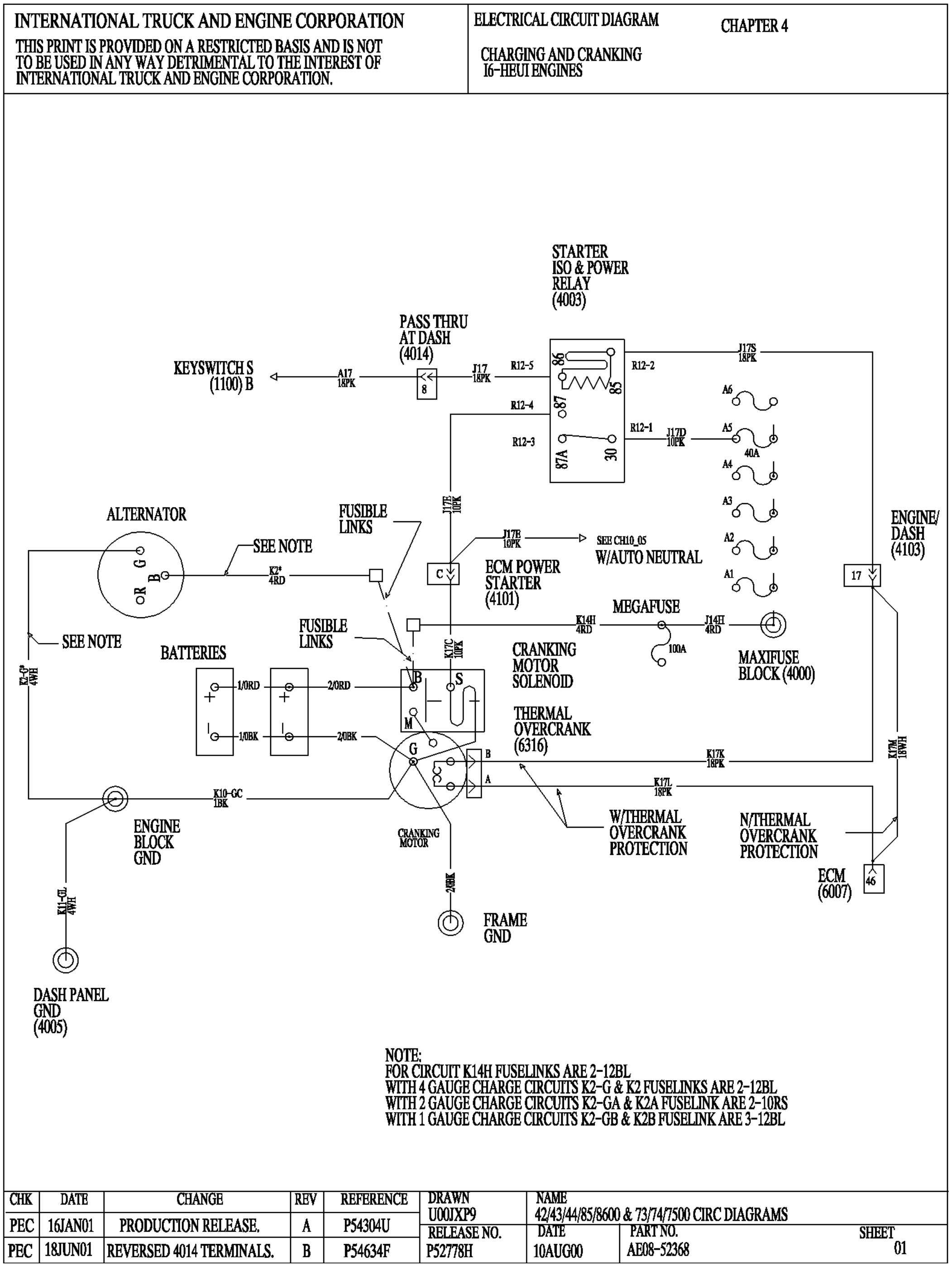
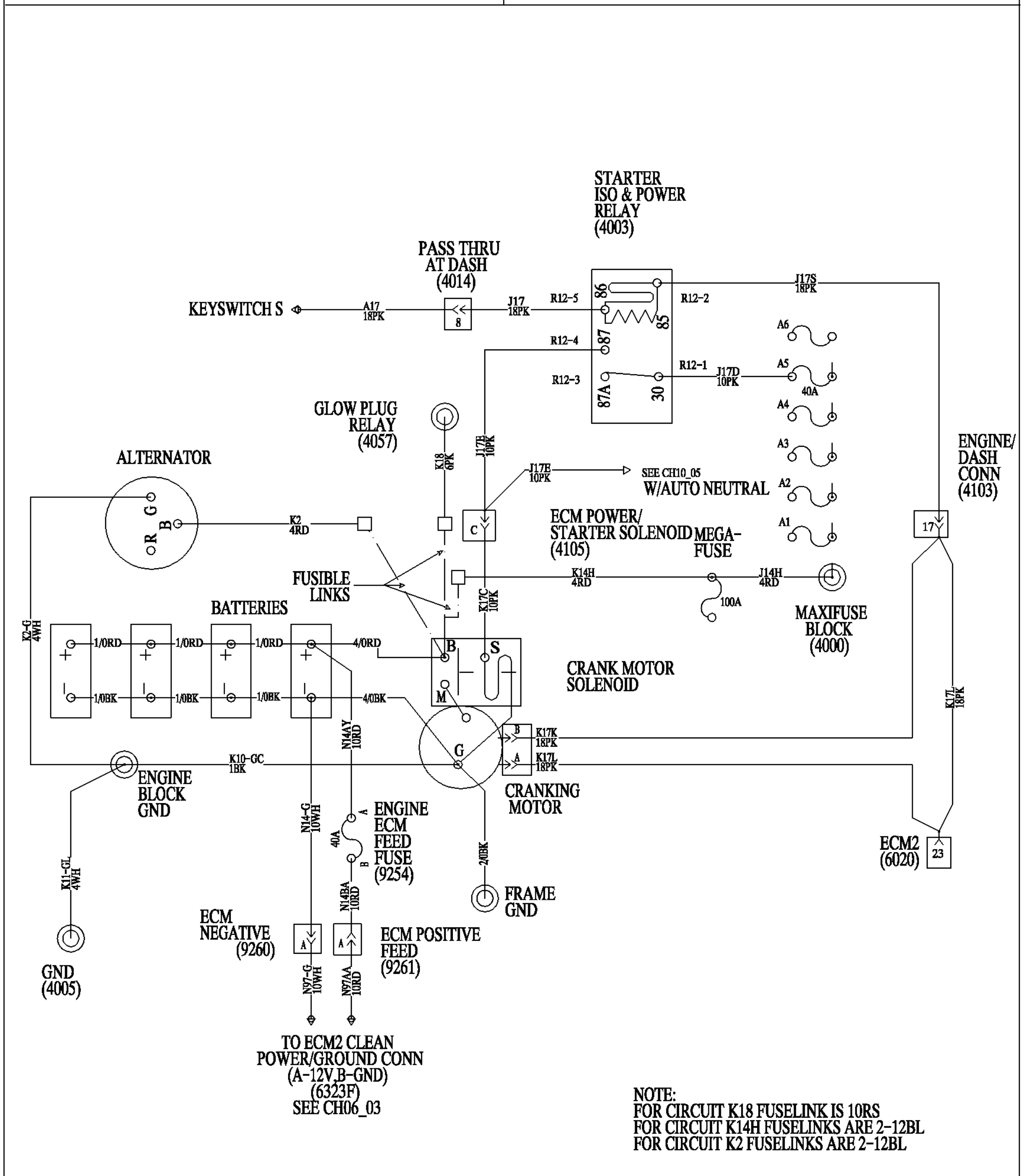


Figure 45 I6 HEUI Engines

4.2. V8 AVNT ENGINES, P. 2

INTERNATIONAL TRUCK AND ENGINE CORPORATION	ELECTRICAL CIRCUIT DIAGRAM	CHAPTER 4
THIS PRINT IS PROVIDED ON A RESTRICTED BASIS AND IS NOT TO BE USED IN ANY WAY DETRIMENTAL TO THE INTEREST OF INTERNATIONAL TRUCK AND ENGINE CORPORATION.	CHARGING AND CRANKING (V8-AVNT) ENGINES	



CHK	DATE	CHANGE	REV	REFERENCE	DRAWN	NAME		
PEC	18JUN01	CHANGED FUSE SIZE.	B	P54634F	U00JXP9	42/43/44/85/8600 & 73/74/7500 CIRC DIAGRAMS		
					RELEASE NO.	DATE	PART NO.	SHEET
JKP	11JAN02	REV CRANKING MOTOR.	C	55043Z	P52778H	10AUG00	AE08-52368	02

Figure 46 V8 AVNT Engines

4.3. CATERPILLAR ENGINES, P. 3

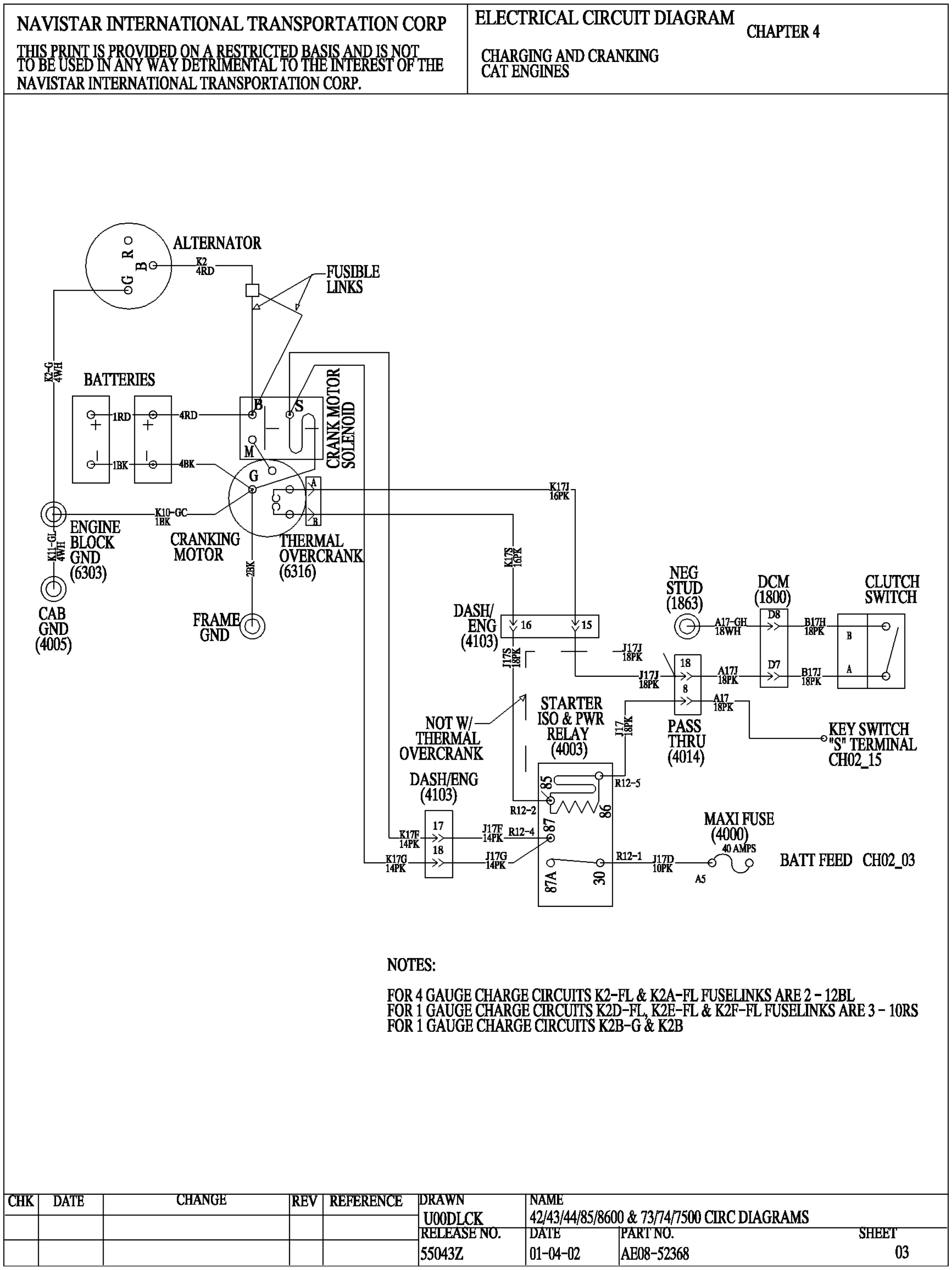


Figure 47 Caterpillar Engines

5. FANS AND ENGINE ACCESSORIES (CHAPTER 5)

5.1. FAN WIRING, P. 1

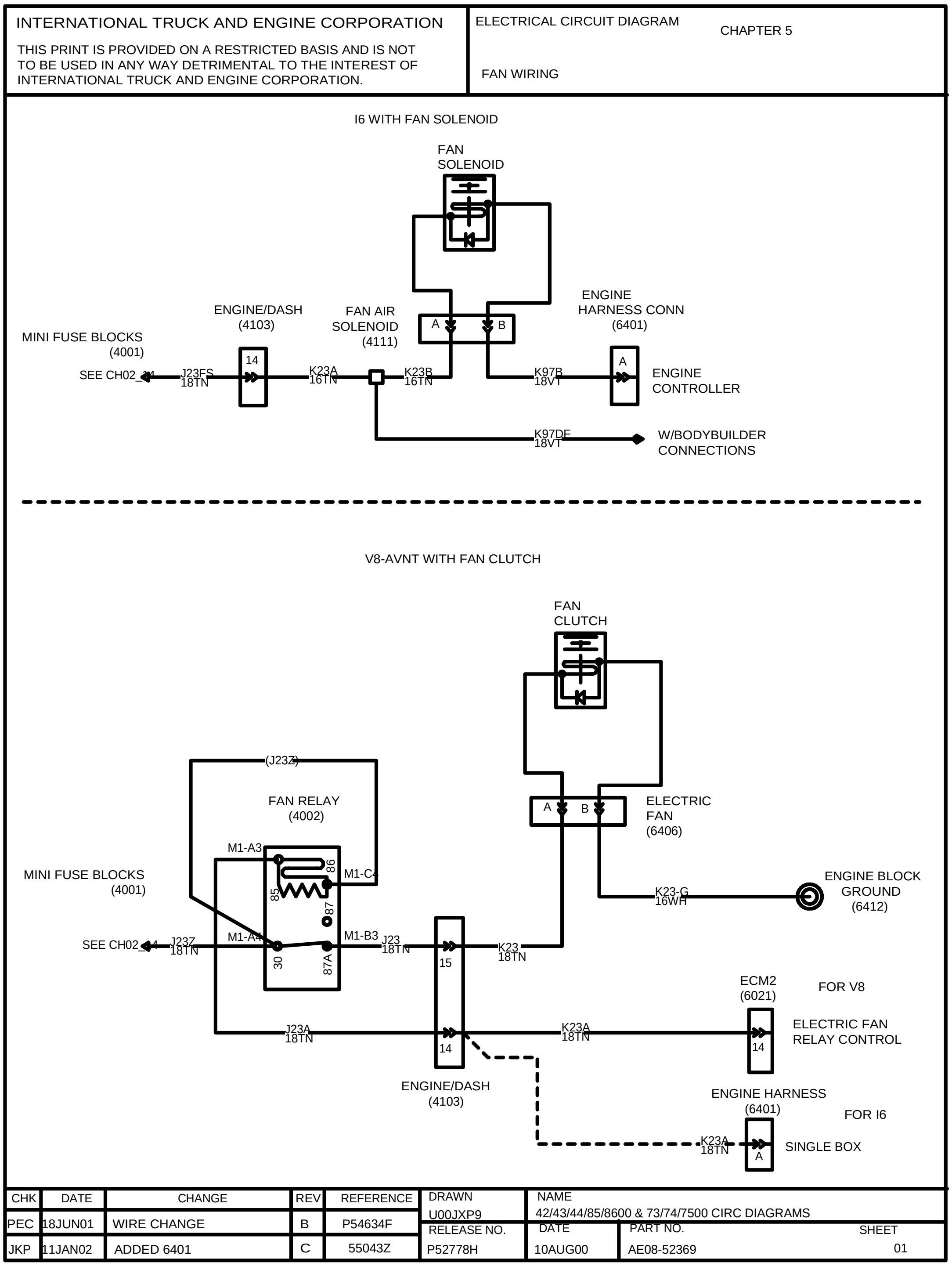


Figure 48 Fan Wiring

5.2. ETHER START, P. 2

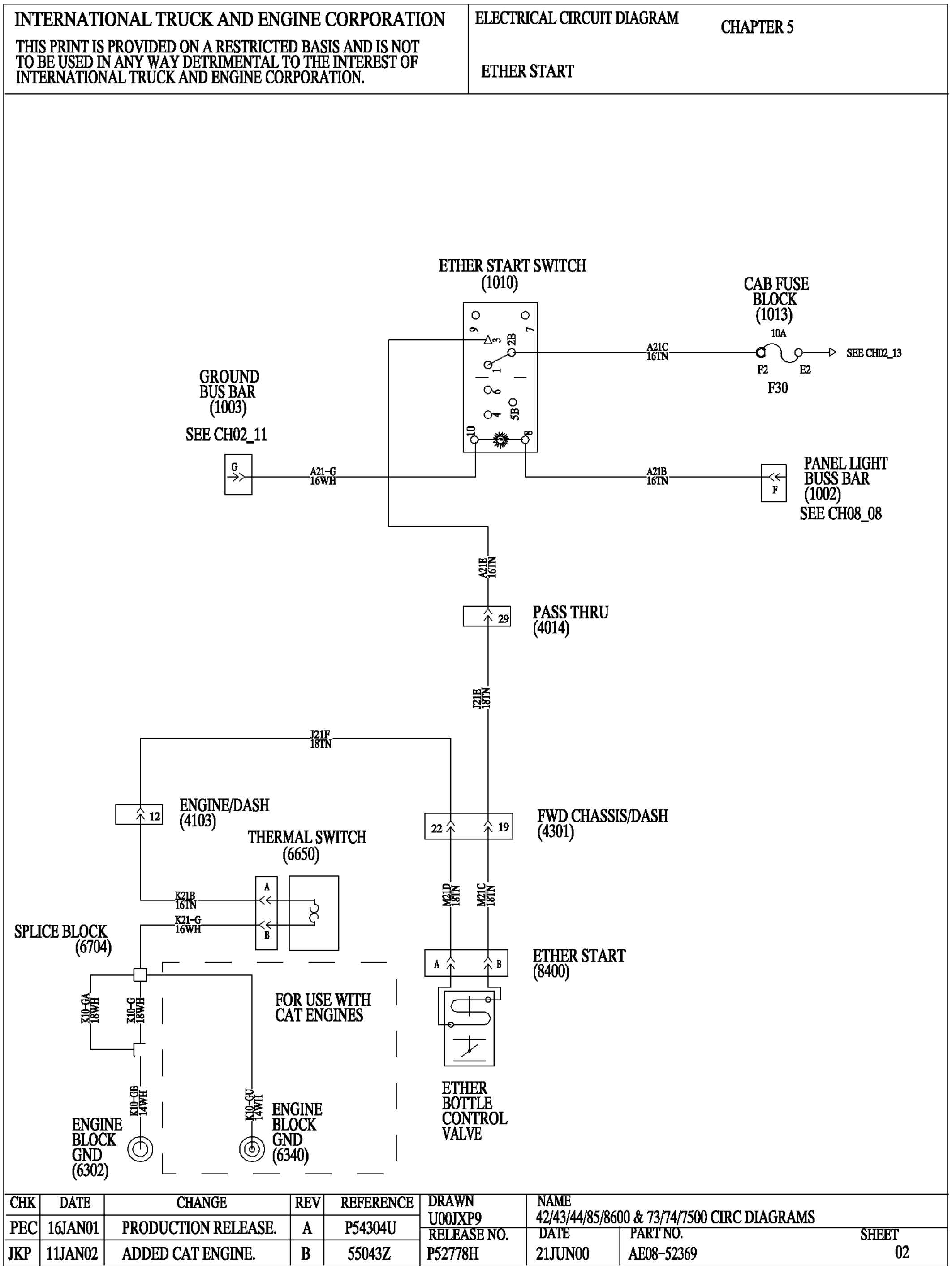


Figure 49 Ether Start

5.3. SNOW VALVE, P. 3

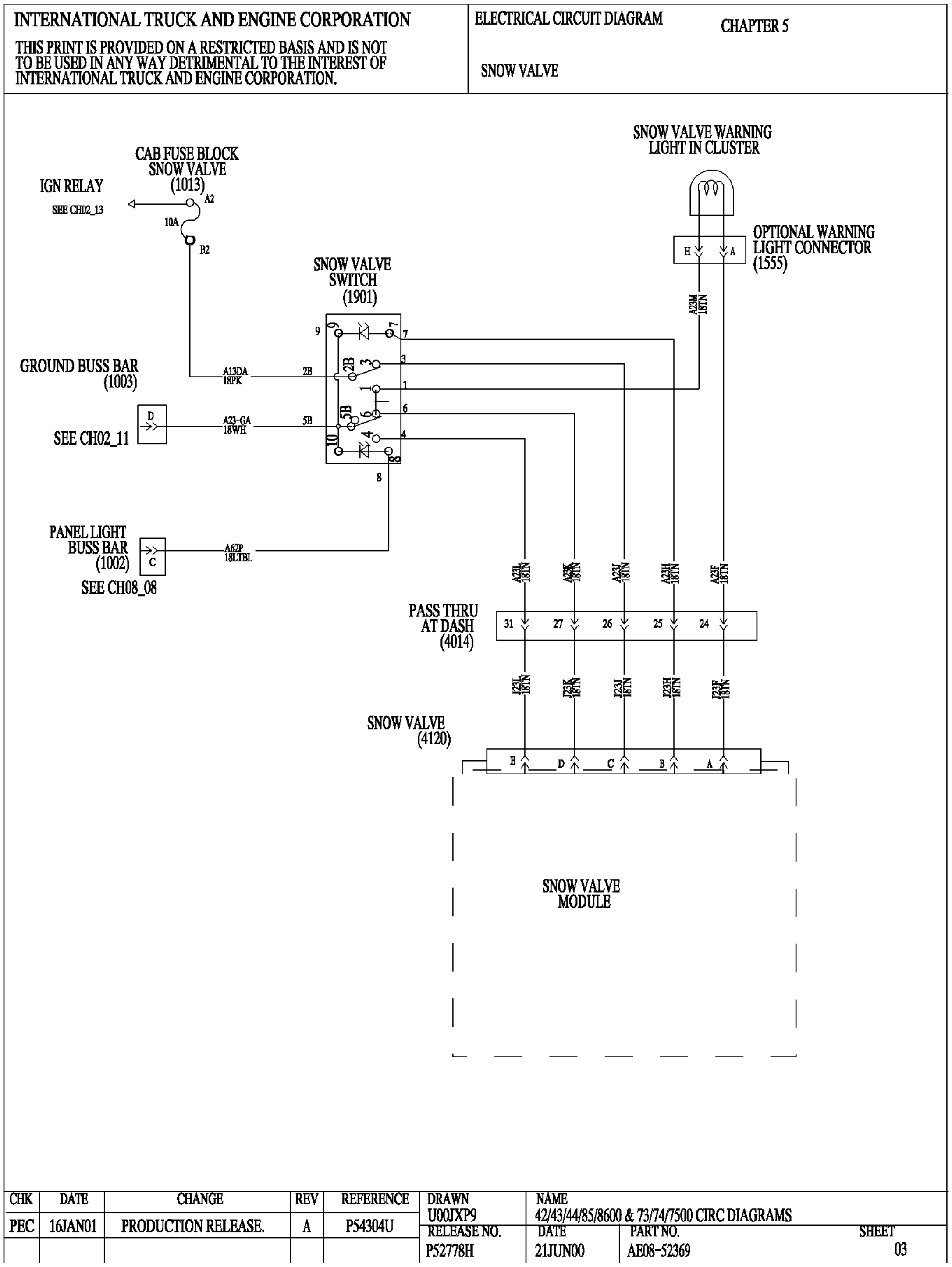


Figure 50 Snow Valve

6. ELECTRONIC ENGINES (CHAPTER 6)

6.1. ELECTRONIC ENGINE CONTROLS, I6–HEUI ENGINES, P. 1

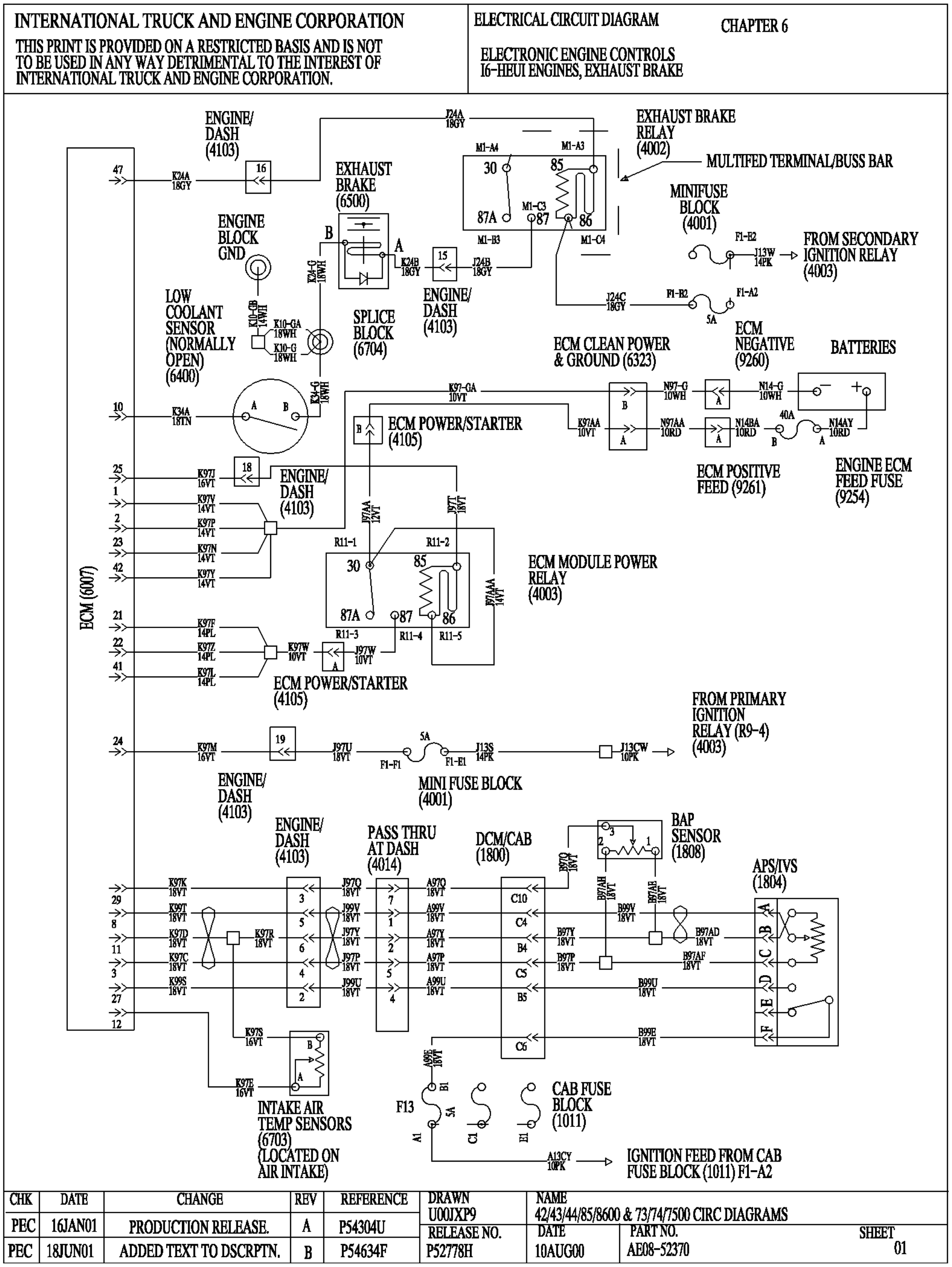


Figure 51 Electronic Engine Controls, I6–HEUI Engines

6.2. ELECTRONIC ENGINE CONTROLS, I6–HEUI ENGINE CRUISE CONTROL AND BODY BUILDER CONNECTIONS, P. 2

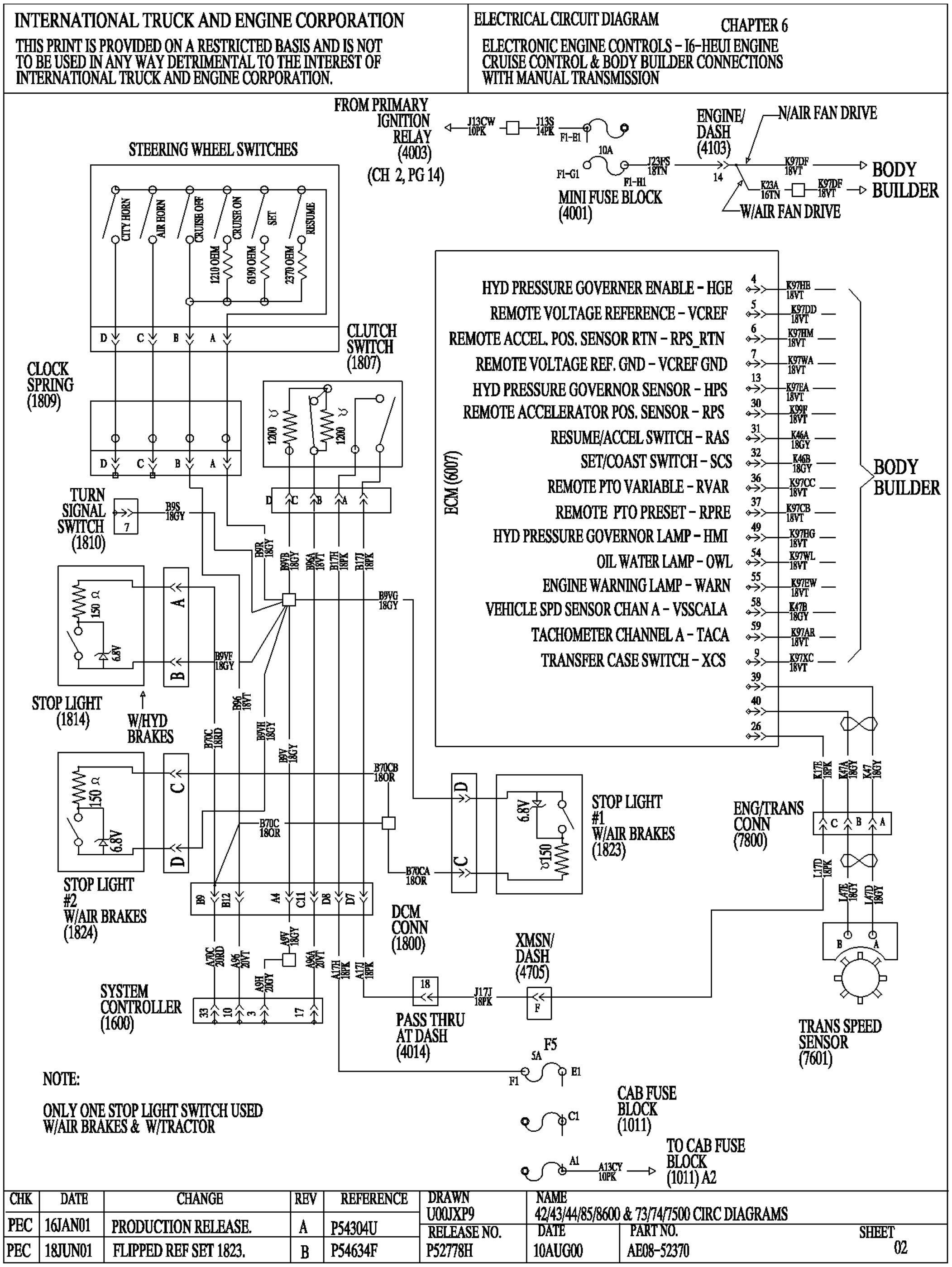


Figure 52 Electronic Engine Controls, I6–HEUI Engine Cruise Control and Body Builder Connections

6.3. ELECTRONIC ENGINE CONTROLS, (V8–AVNT) ENGINES, P. 3

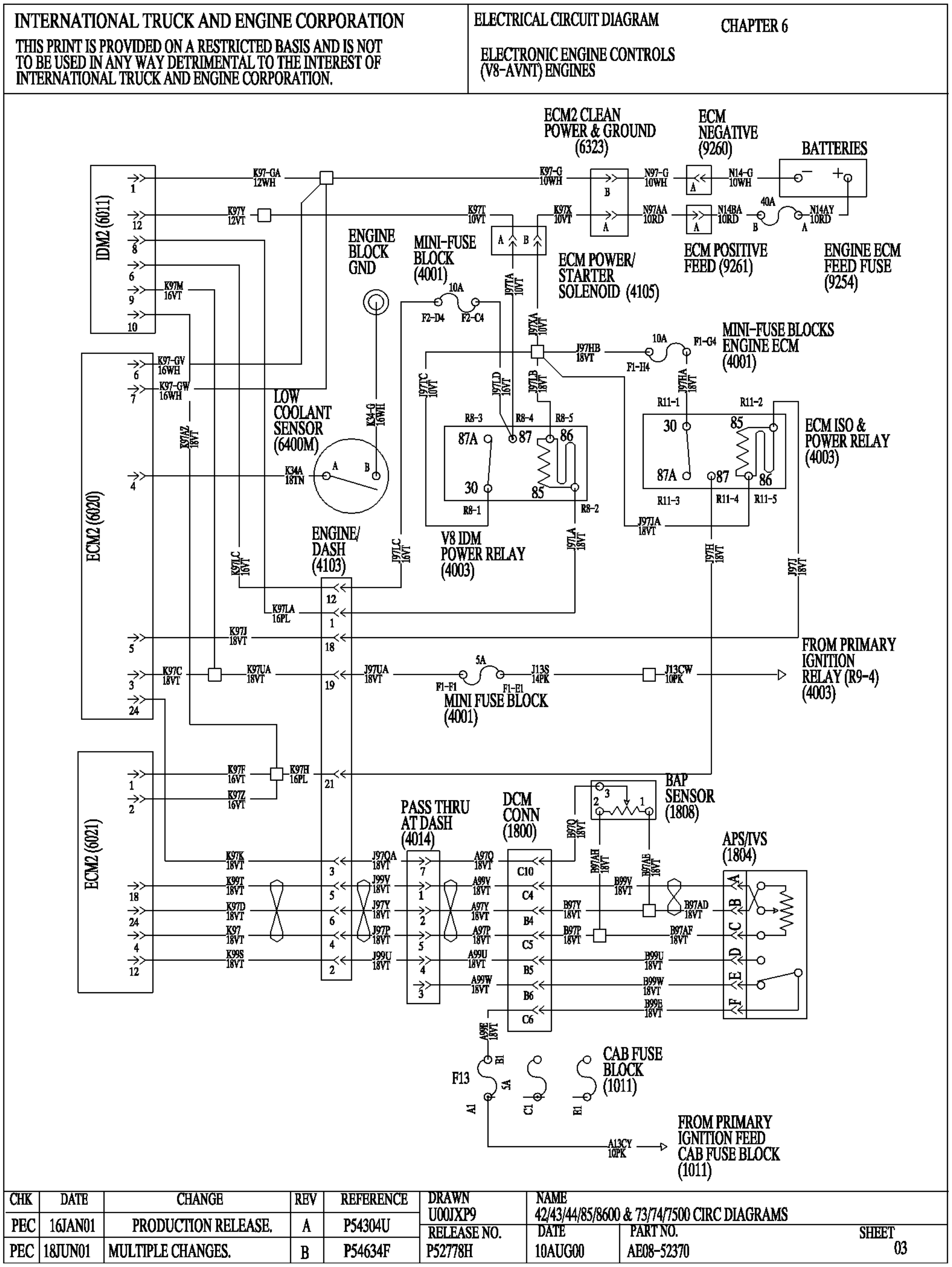


Figure 53 Electronic Engine Controls, (V8–AVNT) Engines

6.4. ELECTRONIC ENGINE CONTROLS, V8–AVNT ENGINE CRUISE CONTROL AND BODY BUILDER CONNECTIONS, P. 4

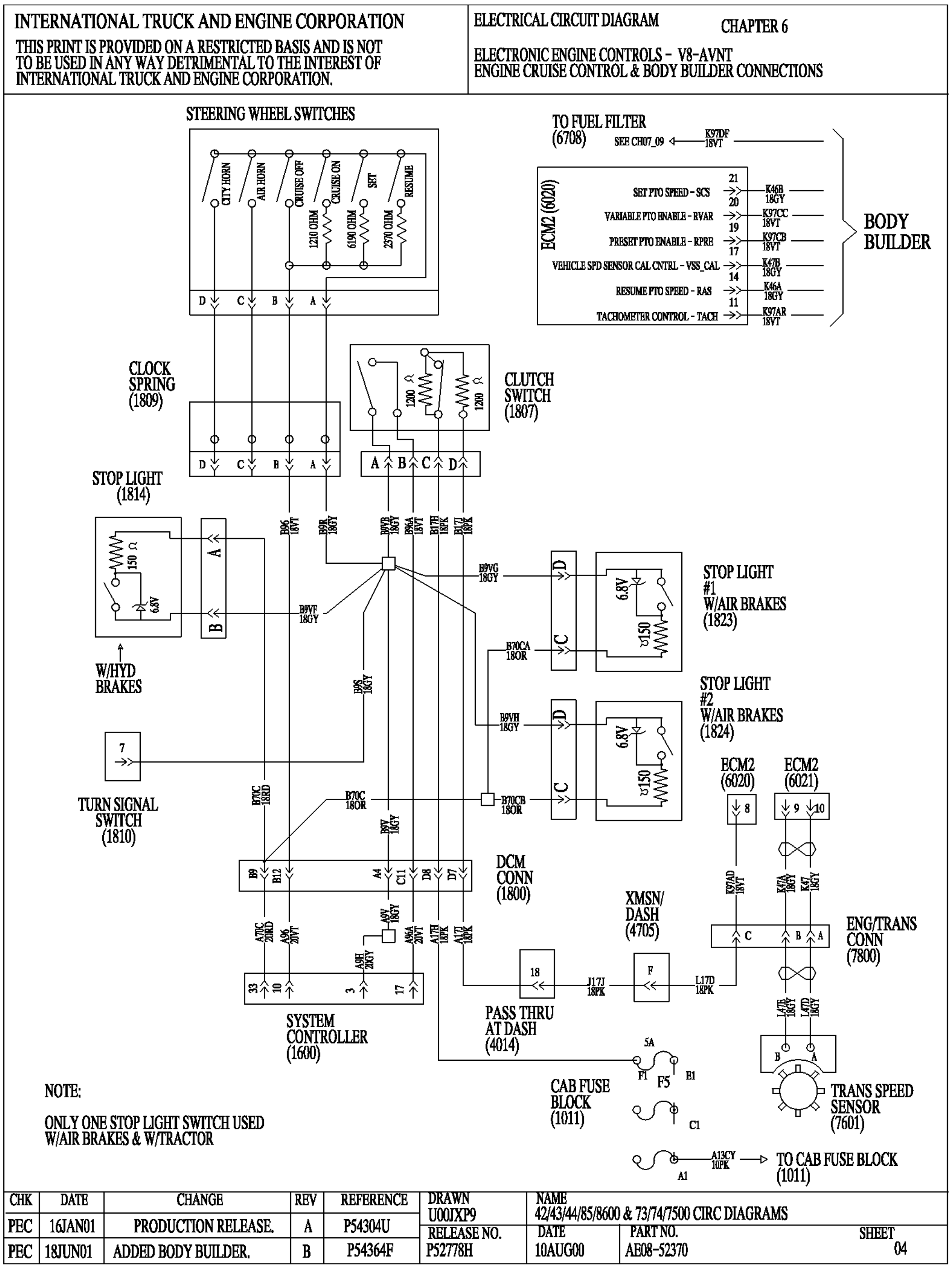


Figure 54 Electronic Engine Controls, V8–AVNT Engine Cruise Control and Body Builder Connections

6.5. CATERPILLAR C10 AND C12 ENGINES, P. 5

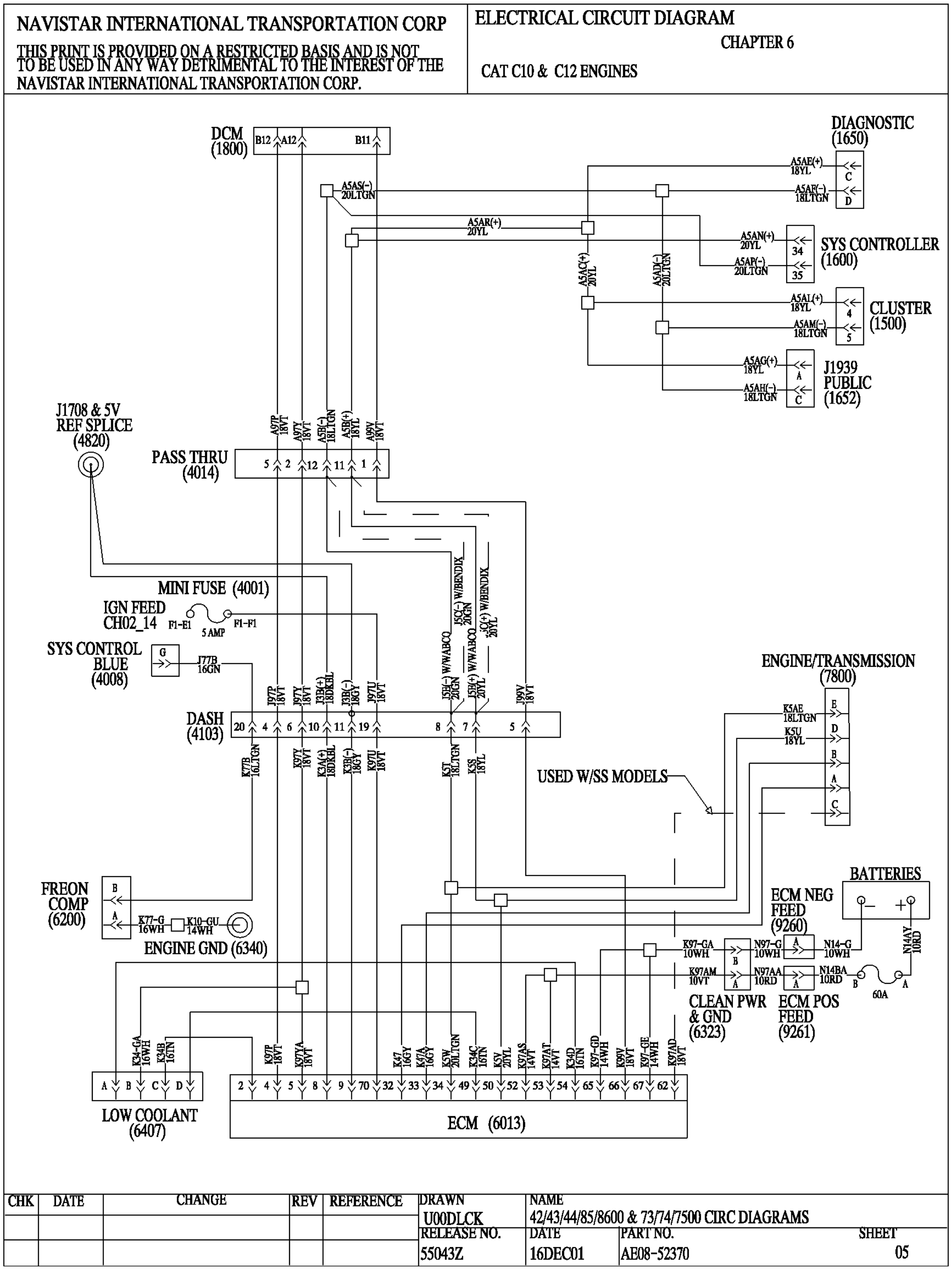


Figure 55 Caterpillar C10 and C12 Engines